FINAL

NAVAL STATION TREASURE ISLAND
REMEDIAL PROJECT MANAGER AND
BASE REALIGNMENT AND CLOSURE CLEANUP TEAM
MEETING MINUTES

NOVEMBER 14, 2000

A Naval Station Treasure Island remedial project manager and Base Realignment and Closure Cleanup Team (BCT) meeting was held at 9:30 a.m. on November 14, 2000. The meeting agenda, sign-in sheet, and action item list are included as Attachment 1. The following people attended this meeting:

John Baur	International Technology Corporation (IT)
Michael Bloom	Naval Facilities Engineering Command, Southwest Division (SWDIV)
Virginia Demetrios	Tetra Tech EM Inc. (TtEMI)
Victor Early	TtEMI
Steve Edde	SWDIV
Gary Foote	Geomatrix Consultants (Geomatrix) (consultant to the City of San Francisco)
Kathy Himes	TtEMI
James McClure	Geomatrix
Neill Morgan-Butcher	TtEMI
Michelle Murphy	TtEMI
Peggy Peischl	Geomatrix
Teri Pham	TtEMI
Michael Pound	SWDIV
Vladimir Prilepin	TtEMI
Sarah Raker	California Regional Water Quality Control Board (RWQCB)
David Rist	California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)
Cindi Rose	TtEMI
James Sullivan	SWDIV
Tony Tactay	SWDIV
Jerry Wickham	TtEMI

Date Draft: December 21, 2000
Date Final: May 1, 2001

James Sullivan (SWDIV) convened the meeting and distributed the meeting agenda and list of current action items. He stated that, in the future, the Navy would aim to send the action items to meeting participants with the draft agenda 1 week prior to the meeting for review. He then explained that additional action items had been submitted by Sarah Raker (RWQCB) that would be addressed later in the meeting. David Rist (DTSC) stated that he had the following additional items to discuss:

- Interim measures plan
- John Stewart's letter
- IT's post-construction report schedule
- Debris encountered as part of removal action
- Historical study update

I. UPDATE ON THE SITE 12 INTERIM MEASURES PLAN

Mr. Sullivan explained that he wanted to brief the team on the status of the Site 12 interim measures plan that was outlined in a letter from the Navy dated October 27, 2000. Mr. Rist noted that during the follow-up conference call (held November 2, 2000), an agreement had been reached among DTSC, the City of San Francisco, and the Navy, and that agreement was a change from the Navy proposal issued October 27, 2000. Mr. Rist asked when the Navy would issue a revised letter documenting those agreements. Mr. Sullivan explained that the primary change resulting from the conference call was regarding the signs posted in selected areas. He stated that the Navy agreed with DTSC's choice of language, with the exception that the Navy would add the phrase, "area under environmental investigation," as a header. Therefore, the entire sign would read as follows:

AREA UNDER ENVIRONMENTAL INVESTIGATION
CAUTION: HAZARDOUS SUBSTANCE AREA
UNAUTHORIZED PERSONS KEEP OUT
(Contact Information)

Mr. Sullivan noted that the contact information would include both a Navy and DTSC point-of-contact.

Mr. Rist asked whether the Navy had prepared a proposed schedule for the Site 12 interim measures. Mr. Sullivan indicated that the Navy had proposed that these activities would be completed by the end of December and noted that an interim measures schedule is included in the overall Site 12 schedule. Mr. Rist stated that because DTSC would like more time to review the overall schedule, DTSC would prefer a separate schedule for the interim measures. He also requested documentation of the agreements reached at the November 2, 2000, meeting, so that the BCT could review a final plan. Both Mr. Foote and Mr. Rist requested that the Navy also submit a schedule reflecting these changes. Mr. Sullivan stated that the Navy would provide a more detailed update on the interim measures plan as it evolves.

Mr. Sullivan then noted that the interim measures are just one component of the overall Site 12 schedule. Ms. Raker stated that she did not feel the overall Site 12 schedule accounted for the data gaps discussed during the last Site 12 meeting. Mr. Rist expressed concern that this might affect the interim measures plan, stressing that it is necessary for nature and extent to be well defined to ensure that the interim measure field remediation be most effective.

Mr. Sullivan explained that the interim measures plan consists of two basic components: (1) interim measures application to debris in known areas of concern and (2) evaluation of the other environmental concerns at Site 12. He stated that these two components would be conducted simultaneously. Mr. Rist agreed with the methodology but stated that for sampling to be conducted by the end of December, a field sampling plan (FSP) would need to be developed during the first of the month, and he expressed concern that time was passing. He also noted that the FSP would be difficult to evaluate because the extent and nature of the debris is not fully understood.

Mr. Sullivan suggested that the BCT schedule a conference call in the coming week to discuss the status of the interim measures and stated that the BCT could discuss the initial FSP proposal. Mr. Rist suggested that the Navy prepare a figure that highlights Buildings 1211, 1213, 1235, and 1237 to facilitate discussion of sampling locations and the fieldwork activities. Mr. Foote added that the discussion should also include defining the extent of the debris and, perhaps, sampling and chemical analysis. Mr. Sullivan noted that a short review cycle for the final FSP is also necessary.

Mr. Sullivan then stated that documentation of the agreements made over the phone would be provided by Monday, November 20, 2000. Mr. Rist encouraged the Navy to provide as much detail as possible in its documentation. The tentative date set for the conference call was set for Tuesday, November 21, 2000, at 10 a.m.

Mr. Rist asked whether the letter to the Navy from John Stewart would alter any decisions that the Navy previously made. Mr. Sullivan stated that he did not think it would have any effect on current plans; he also noted that Navy is preparing a response letter that will be distributed to everyone who was copied on the original letter. One issue discussed in the letter was signage; Mr. Sullivan explained that the first sign would provide official notification, while the second would further discuss the investigation and potential remediation schedules. The group agreed that this was a good suggestion.

II. SCHEDULE UPDATE

To begin discussion of the Navy's draft proposed federal facilities site restoration agreement (FFSRA) schedule update, Mr. Bloom distributed four handouts (see Attachment 2):

- Full Schedule Work Plan Table for 2000/01 to 2005/06
- Six-month schedule for deliverables for November 2000 to May 2001
- Schedules E and F of the FFSRA
- Assumptions for the FFSRA schedule

The assumptions for the draft proposed FFSRA schedule was the first handout discussed. Mr. Rist asked whether there was a precedent for these assumptions, and Ms. Virginia Demetrios (TtEMI) replied that this handout was based on the Mare Island installation schedule assumptions. She noted that the purpose of this handout was to identify the underlying assumptions in the schedule. Mr. Bloom stated that the Navy's legal department has not yet reviewed these assumptions and was unsure that they should be included in the FFSRA but encouraged the groups' feedback. Below is a summary of issues discussed as the BCT reviewed each assumption:

- Assumption 1. The group decided that the FFSRA base-wide schedule would be formally reviewed in August of each year.
- Assumption 2. Mr. Sullivan stated that he would look for a preexisting schedule change in the Navy's administrative record.
- Assumption 3. The group decided that the engineering evaluation and cost analysis (EE/CA) is considered a secondary document and would be removed from this assumption statement. A finding of suitability to transfer (FOST) is not a primary document but will follow the primary document schedule.
- Assumption 4. Mr. Rist stated that he has yet to ask DTSC management whether the petroleum program should be included in the FFSRA schedule. Mr. Bloom stated that the corrective action plan (CAP) sites are included in the schedule for planning purposes but understood that the FFSRA only encompasses CERCLA sites; therefore, the dates are not enforceable. Ms. Raker suggested making that clearer in the text of this assumption.
- Assumptions 5 and 6. Mr. Bloom noted that these are narratives of the "Document Production and Review Period" table on the last page of the handout.
- Assumption 7. No comments were made.
- Assumption 8. No comments were made.
- Assumption 9. The group decided that the assumption that the offshore environmental risk assessment (ERA) includes all offshore environmental concerns would be discussed at a later date.
- Assumption 10. The text would be revised to state, "site evaluation criteria," rather than "screening criteria."
- Assumption 11. For the 90-day remedial action with no groundwater concerns, "small to medium" would be added before "remedial action" in the sentence.
- Assumption 12. Footnotes on the attachment will require revision.

During the discussion of Assumption 10, Mr. Foote commented that some screening criteria are less clear than others, like the total petroleum hydrocarbons (TPH), which have been ambiguous for some time for Treasure Island. An agreement has been reached for Site 12 but not for the rest of the installation. Ms. Raker said that TPH was being addressed as a facility-wide groundwater program. Mr. Sullivan mentioned the approach to TPH is being addressed in the TI petroleum program, which could then be incorporated into the onshore CERCLA sites where petroleum is also present.

Mr. Foote noted that assumptions 5 and 6 read that only the regulatory agencies review drafts and did not mention the City of San Francisco. Mr. Bloom and Mr. Sullivan responded that the city is assumed to be included when the regulatory agencies are mentioned, but from a legal position, the city is not a signatory of the FFSRA.

Mr. Bloom summarized, stating that the revised table will be included in the FFSRA, but the assumptions, which will also be revised, will be placed in an agreed upon document.

Ms. Raker asked if any of the revisions to the FFSRA are required to be reviewed by signatories of the FFSRA. Mr. Rist responded that the revisions would have to be reviewed by the original signers; however, he stated that the revised schedule would have to be signed by the senior managers of the respective agencies. Ms. Raker stated that her concern was mainly whether or not the legal departments must review the revisions, especially in regard to the assumptions. Mr. Bloom responded that Navy Counsel has not reviewed the assumptions, which is why they may not be included in the FFSRA. Mr. Bloom then asked who signs the Installation Cleanup Plan page. Mr. Rist replied that the DTSC managers sign it. Mr. Bloom agreed it is unclear who must review and sign for the revised schedule and if the wording of the FFSRA document needed to be reviewed. Mr. Sullivan added that since we are updating only the appendices that refer to the schedules, it was his understanding the respective managers did not need to review all the revisions.

Mr. Rist asked when the overall schedule presented in Microsoft Project format would be finalized and if it was available for review. Mr. Bloom replied that he was waiting until agreement was reached on Appendices E and F but that he could send the schedule on the following Tuesday, November 21, 2000, to be received on November 22, 2000.

Mr. Bloom added that the offshore schedule had been revised and that members should note that Sites 13 and 27 have been altered.

Mr. Bloom mentioned that the overview section of the installation cleanup plan had been revised based on previous discussions. The goals are the same as the previous version; however, the dates have been changed to reflect those on the schedules. He suggested that if anyone had further comments about this

page, they should send those comments electronically by e-mail to Mr. Sullivan or Mr. Bloom, and they will then be discussed with the group.

Mr. John Baur added a comment about Appendix F. He noted that the onshore operable unit (OU) was missing information for Sites 1, 3, 5, 7, 17, 21, and 24. Mr. Bloom noted that the information about OU sites would be corrected and suggested that the team review the handout and send him an electronic message with any comments.

III. PRESENT OFFSHORE WORK PLAN

Mr. Bloom started his presentation of the offshore work plan with a status of the offshore work. Everyone had received the work plan, which was sent out on November 8, 2000. All issues for the offshore areas raised by the agencies to date have been addressed. Both DTSC and EPA have concurred that Site 27 (Clipper Cove) with the lead shot at depth is protective under the current evaluation, however they do not feel the nature and extent has been fully characterized. DTSC also noted that reuse for this area has not been finalized, and stressed that both of these issues needs to be addressed before they can agree that the area has been addressed in an appropriate manner. The City of San Francisco is concerned about the potential risk resulting from future dredging activities. Mr. Rist asked if there was a plan for resolving this issue. Mr. Pound said that the Navy's position is that no remedial action is to be taken, as it is protective in its current state. Therefore, the Navy will finalize the remedial investigation (RI) for Clipper Cove and Area G. A feasibility study (FS) will be prepared for Clipper Cove and the need for an FS for Area G will be determined after additional data are collected.

Ms. Cindi Rose of TtEMI distributed handouts (see Attachment 3) of the Data Quality Objectives (DQO) table and the proposed sampling locations. She started her discussion with a review of Table A-2, DQO for additional offshore sampling at TI. The DQO table summarizes the information presented in the work plan. She first explained the "problem statement": specifically that there is regulatory concern that the land protrusion from the northern shoreline may be the result of debris having been pushed offshore and that said debris might have high concentrations of lead. Lead concentrations detected in adjacent onshore debris test holes were high while concentrations of lead detected offshore of Site 12 were not elevated. However the number of samples collected offshore adjacent to the land protrusion was not

sufficient to conclude that lead concentrations are not elevated offshore. Ms. Rose referred to Figures 5 and 8 in the handouts, which show sediment sample locations and lead concentrations. If lead concentrations in the Site 12 offshore investigation area are found to be elevated in the sediment then there is a possible risk to ecological receptors.

The conclusion of the draft final RI for Area G is that there is no risk to ecological receptors. Although the samples collected in the area for the previous RI sampling investigation were limited, they did not show elevated concentrations of lead. In fact, the maximum concentration of lead in the offshore area was 126 milligrams per kilogram (mg/kg).

The principal study question included in the DQO summary is whether lead is elevated in the top 2 feet of the sediment. If lead concentrations are elevated, then the sediments may pose a risk to ecological receptors. If lead concentrations are not elevated, then the risk posed to ecological receptors would be minimal due to limited exposure. If lead is not elevated, then the lead has either been subsequently buried by sediment or the lead has been eroded since it was deposited. Mr. Rist asked how the decision was made to focus only on lead and not polynuclear aromatic hydrocarbons (PAH) or polychlorinated biphenyls (PCB). Ms. Rose stated that the additional offshore investigations were being considered due to the onshore data that indicated elevated lead concentrations. No other contaminates of concern were raised earlier. Mr. Rist suggested that, in addition to the Site 12 offshore investigation area, areas 1207, 1209, and debris disposal areas A and B, also be investigated. Mr. McClure suggested a more explicit rationale be included in the work plan for focusing only on lead.

Ms. Rose then began to discuss the inputs to the decision for the DQOs. Mr. McClure commented that sample depths should be consistent with the assumed exposure depth interval used for the development of the screening levels. For example, if the ER-Ms were based on shallow sediment, data interpretation problems could arise if a comparison was made to the 0 to 2-foot composite samples proposed at TI. Ms. Rose acknowledged that there are multiple sources of uncertainty associated with this type of comparison. Ms. Demetrios added that currently, this is the best method available and that screening values for ecological risk are limited and that there are no screening values available for sediment below 6 inches. Ms. Rose stated that samples have been collected at deeper depths and screened against the same criteria

at other installations in the Bay Area. Any uncertainties with the approach would be noted in the report, specifically in the uncertainty section.

Ms. Rose went on to explain that samples would be analyzed using x-ray fluorescence (XRF). She said that 3 samples would also be analyzed using Contract Laboratory Program (CLP) analysis to validate the results of the XRF. Mr. Rist expressed concern about using XRF data because the Building 1231/1233 pilot test indicated that XRF results were lower than CLP results. To address this concern, the Navy will dry the sample before performing XRF analysis. Mr. Rist also inquired about the criteria for selecting the location of the three CLP analysis samples. Ms. Rose said that the proposed locations are close to the shoreline nearer the potential source of contamination (the shoreline). Mr. McClure recommended samples be archived and selected for validation after the XRF results have been evaluated.

Ms. Rose read the decision rules for question number 1 (column 5) from Table A-2. She explained that if the answer to question 1 is yes, then there is no further action for Area G; if the answer is no, then Area G should be further evaluated. Mr. Foote asked that Ms. Rose provide the basis for setting the cut-off at 85 percent, and Ms. Rose replied that the 85 percent number is routinely used as a baseline for evaluating the results. Magnitude and frequency of exceedance will be evaluated.

Ms. Rose read through the decision rules for question number 2. She explained that a length of 1 centimeter per 10 centimeters would be evaluated to a depth of 100 centimeters. The top 3 feet of the core will be measured for radioisotopes. A geologic description will be evaluated for the entire core. Mr. McClure requested that the Navy provide their definition of fine grained sediment, and provide the basis or reference for their assumption that sediment containing more than 50% fine grained material indicates a depositional environment.

Mr. McClure expressed a concern about basing a no further action decision on data collected from only the first 2-foot depth of sediment. He explained that this decision does not take into consideration that future changes may take place in the area of concern. Chemicals could be under the first 2-foot depth that could later be surfaced. He suggested an institutional control might be necessary to maintain a depositional environment.

Ms. Rose then continued to read through the DQO table. No further comments were made.

Ms. Rose stated that the comments are due on the document from the agencies by December 8, 2000, and the field investigation is scheduled to begin in February 2001. An updated schedule was distributed that replaces the one included in the work plan.

IV. UPDATE ON BIGELOW-FLOUNDER COURT AT THE FORMER STORAGE YARD

Mr. Sullivan distributed handouts (see Attachment 4) to facilitate discussion and summarized the removal action that had taken place in Halyburton, Bigelow, and Flounder Court areas. Participants decided at an earlier meeting that if the soil was not a concern in the area, the area could be leased to Treasure Island Homeless Development Initiative. Because of the concern with the confirmation samples indicating PCB contamination beneath buildings, Halyburton Court would not be available for immediate leasing. As a result, the City of San Francisco requested efforts be focused on leasing the Bigelow and Flounder Courts.

Mr. Sullivan indicated that one soil sample taken between Buildings 1107 and 1105 at Bigelow Court had a PCB concentration that exceeded 4 parts per million (ppm). As a result, the DTSC recommended additional indoor air sampling to determine whether the units were suitable for occupancy because of concern that the PCBs would contaminate the indoor air. Mr. Foote explained that the City of San Francisco was planning to perform the indoor air sampling. Due to recent events, however, this is not the only unresolved issue in the area and, therefore, the City was postponing the sampling. Mr. Foote then stated that if further investigation is necessary, the City of San Francisco would prefer that the Navy conduct the indoor air sampling. Mr. Rist inquired about Buildings 1105 and 1107. Mr. Sullivan clarified that samples from the excavation floor at 4 feet bgs showed aroclor 1248 concentrations of 0.33 ppm from an area 13 feet by 14 feet. Earlier samples from the excavation (prior to continued soil removal) showed concentrations of 4.2 ppm.

Mr. Sullivan and Mr. Risk dug approximately 30 borings in the backyards of buildings in the Halyburton-Bigelow Court area on Saturday, November 11, 2000, to determine if the soil was impacted by debris. Mr. Gary Foote was present as an observer. Mr. Sullivan, Mr Foote, and Mr. Rist explained that 2-foot

potholes were dug in the backyards. Mr. Sullivan passed out a figure with the locations (see Attachment 4) as well as copies of photographs showing the contents of the potholes (see Attachment 5). Mr. Rist explained that although some debris was found, the majority of the potholes did not have signs of debris. Mr. Murphy of DTSC has also evaluated the contents of the potholes behind Building 1101 and thinks further investigation is necessary in that yard.

Mr. Sullivan discussed Figure 2, the indoor air sample locations and the final confirmation samples collected at the Former Storage Yard Removal (see Attachment 4). Mr. Rist commented that he did not see the wall sample concentration at the edge of Building 1110 when he evaluated the data and noted he needed to discuss it with his management. Because Building 1110 is currently occupied, Mr. Rist expressed concern regarding the PCB concentrations, and they want to ensure that there is no risk to the residence.

Mr. Rist requested a schedule for the additional investigation at Halyburton Court, a technical memorandum for previously completed investigations, and a plan to address the debris and additional indoor air sampling. Mr. Sullivan suggested scheduling a separate conference call or meeting to determine a plan for addressing the unresolved issues.

V. RESTORATION ADVISORY BOARD MEETING AGENDA

Mr. Sullivan stated that he expected a low turnout because of the Thanksgiving holiday for the Restoration Advisory Board (RAB) meeting on November 21, 2000. He then informed the group that during the October meeting, the RAB decided to modify the meeting procedure. It was decided that every other month a regular RAB meeting would occur that provides members with general updates and takes care of administrative items; most people were expected to attend this type of meeting. Every other month, a technical focus meeting would be held for interested RAB members to review specific technical issues and documents; he explained that these meetings would be treated more like a workshop and stated that he expected fewer people to attend.

Mr. Sullivan then proposed updating the RAB with an overview of the recent reports and activities at November meeting. Mr. Steve Edde suggested the RAB develop focus groups, which could update the rest of the members at the general meeting.

VI. OTHER ITEMS

Ms. Raker suggested that the Navy distribute a field schedule each month. Mr. Bloom stated that the Navy would develop a table for the next BCT meeting. Ms. Raker asked about updating the action items. Mr. Bloom stated that the action items from the November 1, 2000, meeting, where the group discussed the schedules, would be distributed by electronic mail later that day.

At the October BCT meeting, comments were raised by the group about various sites. One of the comments for Site 8 was from a representative of the City of San Francisco, who noted that volatile organic compounds (VOC) analysis was not conducted and stated that either the Navy should collect the data or provide a technical rationale for why VOC's were not being evaluated. Ms. Demetrios explained that VOCs were analyzed at Site 7, where sludge was spread prior to being distributed at Site 8, the sludge disposal area. VOCs were not detected in the samples at Site 7. Therefore, the Navy does not suspect VOCs to be present at Site 8. This appeared to satisfy the city's concern, and Ms. Demetrios noted this would be included in the next version of the Site 8 RI report. An additional concern was raised by Mr. Foote in October that detection limits at Site 5 and F2B for PAHs may have been higher than the screening criteria. Ms. Demetrios passed out two tables (Attachment 6). The first table showed chemicals of potential concern at Site 5. The second table, Soil Analytical Results – Site 05, showed the sample identification, date, sample depth, detection limit for each PAH sample, and concentration reported. Mr. Neill Morgan-Butcher (TtEMI) addressed the groups' questions as to why 0.29 mg/kg for a PAH screening level was used instead of 0.62 mg/kg. The 0.29 mg/kg concentration is for a residential scenario, where 0.62 mg/kg is for an industrial scenario. Mr. Morgan-Butcher explained that the detection limits were higher than the screening levels. Therefore, samples with the higher PAH detection limits may exceed the PAH screening criteria. These samples are also in areas where TPH is present. Mr. Morgan-Butcher stated this was not the case for Site 5, but would be sure to evaluate it further to verify his statement.

Ms. Raker asked whether cleanup criteria for TPH would be developed and suggested using the approach currently in use for cleanup activities conducted under the Corrective Action Plan and Pipeline programs. Mr. Bloom stated that he would prefer to discuss this issue when Ms. Ellen Casados of SWDIV is present. He then noted that BCT meetings should be limited to more administrative issues and technical meetings should be scheduled separately.

Ms. Raker mentioned that according to the most recent document-tracking sheet, the draft finding of suitability to lease amendment was due at the end of September 2000. Mr. Sullivan stated that it is now on hold, and more details would be provided. Ms. Raker suggested that the document-tracking sheet be included as part of the BCT agenda. She also suggested the BCT agenda be distributed 1 week before the meeting.

Prompted by Ms. Raker's suggestion, it was agreed that the Navy distribute a full administrative record listing and provide periodic supplements throughout the year.

The agency representatives agreed that the meeting minutes need to be processed in a timely manner. Ms. Raker suggested that all representatives sign the minutes as a way of formally agreeing that they are accurate. Mr. Bloom noted that in the past, the minutes were distributed as a draft version to the BCT and were finalized during the next meeting. Mr. Rist then suggested printing both the date that the minutes were submitted for review and the date they were finalized on the minutes themselves.

To expedite the production of the minutes, Mr. Bloom then suggested shortening the format to only include key issues discussed, decisions reached, and associated action items. Mr. Rist suggested having someone summarize the main points and action items at the end of each discussion. The group agreed to try this method at the next meeting.

The group agreed that a comments column would be a useful addition to the action item table. Ms. Demetrios stated that she would revise the format for the action items and provide it to the BCT for review. Mr. Rist requested that action items that are exclusively for the Navy be kept on a separate list. The group also agreed that fieldwork and document due dates should not be included on the action item table. The group discussed whether the action items should include all meetings held throughout the

month or just the monthly BCT meeting. It was agreed to include all the action items and review it at the next meeting. Sullivan noted that the letter regarding the Former Storage Yard should be removed from the action item table because the area is no longer being considered for renovation.

The group was unclear about the purpose of the lead-based paint letter listed on the action item list. It was decided that a letter should be sent to DTSC stating what has already been done and how the Navy should address the other buildings on the island. Mr. Sullivan explained that because there was not a project manager for lead-based paint issues, a due date could not be set at this time.

VII. UPCOMING MEETINGS AND ACTION ITEMS

* PLEASE SEE NEXT PAGE FOR ACTION ITEMS *

SUMMARY OF UPCOMING MEETINGS

Purpose	Date	Time	Location
RAB Meeting	November 18, 2000	7:00 p.m.	Building 271, Treasure Island
BCT Meeting	December 12, 2000	9:30 a.m.	To Be Determined

ATTACHMENT 1

SIGN-IN SHEET, AGENDA,
AND ACTION ITEM LIST

(5 Pages)

Date Draft: December 21, 2000
Date Final: May 1, 2001

Meeting: BCT - NSTI

Date: 11/14/00

SIGN-IN SHEET

	Name	Organization	Phone
1.	John Baur	IT	[redacted]
2.	Sarah Rakes	RWQCB	
3.	David Rist	DTSC	
4.	Gary Foote	Geomatrix	
5.	Peggy Peischl	Geomatrix ppeischl@geoma	
6.	Jim Sullivan	NAVY-SWDIV	
7.	TONY TACTAY	SWDIV	
8.	MICHAEL BLOOM	SWDIV	
9.	Michael Pound	SWDIV	
10.	STEVE EDDE	NAVY-BAY AREA	
11.	Gina Dorethios	TtEMI	
12.	JIM MCCLURE	Olivia Chen (Geomatrix)	
13.	Kathy Homes	TtEMI	
14.	Victor Early	TtEMI	
15.	Jerry Wickham	"	
16.	Cindi Rose	"	
17.	Vlad Prilepin	"	
18.	Neill Morgan - Butcher	"	
19.	Teri Pham	"	
20.	Michelle Murphy	"	

NAVAL STATION TREASURE ISLAND
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)
REMEDIAL PROJECT MANAGERS/BRAC CLEANUP TEAM MEETING

DRAFT AGENDA

Date: **Tuesday, November 14, 2000**
Time: **9:30 a.m. to 2:00 p.m.**
Place: **Tetra Tech EM Inc.. 135 Main Street, Suite 1800, San Francisco, California**

9:30 – 10:30	Item:	**I. Schedule Update**
	Opening:	Navy
	Process:	Review Action Items and from November 1st Schedule Meeting
	Goal:	To agree on a process to finalize the schedule
10:30 – 11:00	Item:	**II. Update on the Site 12 Interim Measures Plan**
	Opening:	Navy
	Process:	Brief the team on the October 27th Interim Measures Plan
	Goal:	To initially discuss details and prepare for scoping for the Additional Evaluation
11:00 – 11:15	Item:	**III. Update on Bigelow/Flounder Court at the Former Storage Yard**
	Opening:	Navy
	Process:	Brief the team on the additional indoor ambient air sampling and review of post-removal soil data
	Goal:	To discuss the process for closing out the project
11:15 – 12:15	Item:	**IV. Present Offshore Work Plan**
	Opening:	Navy
	Process:	Present approach and discuss any issues or comments
	Goal:	To accelerate the review process
12:15 – 1:15		**Lunch**
1:15 – 1:30	Item:	**V. RAB Meeting Agenda**
	Opening:	Navy
	Process:	Discuss the items on the November 21st, 2000 RAB meeting agenda
	Goal:	To agree on the RAB agenda

1:30 – 1:45	Item:	**VI. Other Items**
	Opening:	RPMs/BCT
	Process:	Provide an open forum to bring up topics of discussion.
1:45 – 2:00	Item:	**VII. Summarize Action Items/Discuss Future Agenda Items**
	Opening:	RPMs/BCT
	Process:	Summarize action items and identify agenda items for next RPM/BCT meeting
	Goal:	To agree upon action items and agenda items

Future RPM/BCT Meetings:

December 12, 2000 – TtEMI

ACTION ITEMS	RESPONSIBILITY	DUE DATE	REVISED DATE	COMPLETED
ADMINISTRATIVE ITEMS				
BASEWIDE ITEMS				
Update historical AOC table	TtEMI	September 26, 2000	November 1, 2000	November 1, 2000
Create table to cover historical study and EBS	TtEMI	January 15, 2000		
Basewide schedule revision based on Oct. 5 and Nov. 1 regulatory comments	Navy	August 31, 2000	December 12, 2000	
Letter for lead-based paint at YBI	Navy	August 31, 2000		
CAP ITEMS				
GROUNDWATER ITEMS				
Response letter to RWQCB	Navy/TTEMI	TBD[1]		
OFFSHORE ITEMS				
Draft work plan for offshore area	TtEMI	September 22, 2000		November 8, 2000
Schedule a working meeting prior to issuing offshore field sampling plan	Navy	TBD		November 14, 2000
Provide a list of specific concerns for Area G	RWQCB	Completed		

[1] TBD denotes To Be Determined

ACTION ITEMS	RESPONSIBILITY	DUE DATE	REVISED DATE	COMPLETED
RI ITEMS				
Draft documentation for the no further action sites	Navy	March 2001		
Contact CDFG[2] regarding Site 8	Navy	December 12, 2000		
Provide feedback on pesticide sampling at Site 10	RWQCB	TBD		
Check on reuse for Site 28	CCSF[3]	July 11, 2000		October 14, 2000
Develop Site 12 Data Gap Table	Navy/TtEMI	January 9, 2001		
Letters to DTSC regarding soils left in place at former storage yard	Navy	September 18, 2000	TBD	
Indoor Air Sampling (Phase 1)	Navy/TtEMI	September 22, 2000		November 6, 2000
FOSL for lead-based paint at YBI[4]	Navy	TBD		
Letter with rationale for allowing renovation at former storage yard	Navy	August 31, 2000	TBD	
Analysis of the soil gas data at Debris Disposal Area A	TtEMI	September 12, 2000		September 12, 2000

[2] CDFG denotes California Department of Fish and Game
[3] CCSF denotes City and County of San Francisco
[4] YBI denotes Yerba Buena Island

ATTACHMENT 2

FEDERAL FACILITIES SITE RESTORATION AGREEMENT
DRAFT PROPOSED SCHEDULE HANDOUTS

(15 Pages)

TC.0308.10901

Date Draft: December 21, 2000
Date Final: May 1, 2001

Item I

SCHEDULE ASSUMPTIONS
NAVAL STATION TREASURE ISLAND

The following assumptions are also incorporated into the FFSRA schedule for Naval Station Treasure Island. Any adjustments in the following assumptions could necessitate a significant change in the schedule.

ASSUMPTIONS

1. The FFSRA schedule will be reissued by the Base Realignment and Closure (BRAC) Closure Team (BCT) annually.

2. If there is a change in the schedule for a document or other activity (such as field work) that is the critical path for subsequent activities/documents, then the schedule for these subsequent activities/documents will be agreed to by the BCT. These changes will be documented in a schedule change form.

3. Consistent with the FFSRA, primary documents include RI reports, risk assessments, FS, EE/CA, RD's, proposed plans, and RAP/ROD. All other documents are considered secondary documents.

4. The compliance program schedules are not required per the FFSRA; however, they have been included in this schedule for planning purposes. Completion of compliance actions are sequenced to the FOST. These compliance activities are the lead based paint, asbestos, and petroleum programs. Completion of the FOST is required prior to property transfer.

5. In accordance with the FFSRA Schedule all parties have agreed to the following sequential process for all primary documents (see Attachment 1):

   a. There will be a 90-day period for Navy to develop all internal draft documents.

   b. There will be a 15-day period for the Navy to review the internal draft documents.

   c. A "working meeting" will be held to present the draft document and receive comments from the regulatory agencies. This will be in place of submitting a draft document.

   d. There will be a 7-day period for the Navy to incorporate comments from the regulatory agencies and submit the draft final document.

   e. There will be a 30-day period for regulatory agencies to review draft final documents and submit written comments.

   f. There will be a 46-day period for Navy to provide a final document and written response to comments that were submitted within the 30-day comment period.

g. There will be a 7-day period for the regulatory agency representatives to accept the final documents. Final documents automatically become final if no written comments are received within the 7-day comment period.

6. In accordance with the FFSRA Schedule all parties have agreed to the following sequential process for all secondary documents:

   a. There will be a 30-day period for Navy to prepare all draft documents.

   b. There will be a 30-day period for regulatory agencies to review draft documents and submit written comments.

   c. A "working meeting" will be held to present the draft document and receive comments from the regulatory agencies. This will be in place of submitting a draft document.

   d. There draft final will be submitted on the same day as the meeting to the regulatory agencies.

   e. There will be a 30-day period for regulatory agencies to review draft final documents and submit written comments.

   f. There will be a 38-day period for Navy to provide a final document and written response to comments that were submitted within the 30-day comment period.

   g. There will be a 7-day period for the Navy to review the final document.

   h. There will be a 7-day period for the regulatory agency representatives to accept the final documents. Final documents automatically become final if no written comments are received within the 7-day comment period.

7. The following distribution will be followed for all documents:

   a. Regulatory agencies, the City of San Francisco and their contractors, the RAB co-chair, and the technical focus group will receive copies of all primary and secondary documents.

   b. The other RAB members will receive a copy of the distribution letter for primary and secondary documents.

   c. Copies of all primary and secondary documents will be available in the information repositories and are also listed in the administrative record library.

8. Time for laboratory analysis and data validation is included in the dates provided for fieldwork.

9. The basewide offshore ecological risk assessment addresses all offshore ecological concerns for Naval Station Treasure Island.

10. The current screening criteria will not change significantly to cause delays with the documents or field investigations.

11. The field investigation durations are assumed to be: (1) 90-days for a single-phase event and (2) 180-days for a multiple phase event up to 3 phases.

12. The remediation action field durations are assumed to be: (1) 90-days for a remedial action with no groundwater concerns, (2) 250-days for a large remedial action with no groundwater concerns, and (3) 365-days for remedial action with groundwater concerns.

DOCUMENT PRODUCTION AND REVIEW PERIODS[1]

PRIMARY DOCUMENTS[2]

FFSRA GUIDELINES	
Internal Draft	90 ed[4]
Navy Review	15 ed
Draft	15 ed
Agency Review	60 ed
N/A	------
Internal Draft Final	46 ed
Navy Review	7 ed
Draft Final	7 ed
Agency Review	30 ed
Internal Final	46 ed
Navy Review	7 ed
Final	7 ed
Total:	330 ed

ALTERED SCHEDULE[1]	
Internal Draft	90 ed
Navy Review	15 ed
No Draft	------
No Agency Review	------
Working Meeting	****
No Internal Draft Final	------
No 2nd Navy Review	------
Draft Final	7 ed
Agency Review	30 ed
Internal Final	46 ed
Navy Review	7 ed
Final	7 ed
Total:	202 ed

SECONDARY DOCUMENTS[5]

FFSRA GUIDELINES	
Internal Draft	60 ed
Navy Review	7 ed
N/A	------
Draft	7 ed
Agency Review	30 ed
Internal Final	46 ed
Navy Review	7 ed
Final	7 ed
Total:	164 ed

ALTERED SCHEDULE[1]	
Internal Draft	30 ed
Navy Review	30 ed
Working Meeting	****
Draft Final	0 ed
Agency Review	30 ed
Internal Final	38 ed
2nd Navy Review	7 ed
Final	7 ed
Total:	142 ed

[1] As agreed upon in the February 8, 2000 Environmental Closeout Strategy/Schedules meeting, the Navy is in the process of submitting a formal letter to DTSC.
[2] Primary documents include the RI, FS, ROD/RAP, and FOST.
[3] The abbreviation "ed" signifies a calendar day, as opposed to a working day.
[4] Secondary documents include, but are not limited to, tech memos, design strategies, and summary reports.

Item 1

NSTI FY 2000/01 – 2005/06

INSTALLATION CLEANUP PLAN

Naval Station Treasure Island
Service: U.S. Navy
Funding Source: BRAC III

OVERVIEW:

The former Naval Station Treasure Island is a non-NPL installation that closed in September 1997 and is being cleaned up under a September 1992 FFSRA. There have been several reorganizations of operable units throughout the history of the Naval Station Treasure Island environmental cleanup program. The base is currently divided into four Operable Units: (1) an Onshore Operable Unit, (2) a Site 12 Operable Unit, (3) an Offshore Operable Unit, and (4) a Petroleum Operable Unit. The Onshore Operable Unit contains 13 sites (1, 3, 5, 7, 8, 9, 10, 11, 17, 21, 24, 28, 29) and the Offshore Operable Unit contains 2 sites (13 and 27) within the San Francisco Bay and adjacent lagoon. The Onshore Operable Unit will be split into three subunits (a) Sites 9 and 10; (b) Site 11; and (c) Sites 8, 28, and 29. The Site 12 Operable Unit contains one site. The Petroleum Operable Unit contains 9 sites (4, 6, 14, 15, 16, 19, 20, 22, 25). Six Zone FOSLs were completed by the end of 1999, for 100 percent of the base. Ongoing addendums to the FOSLs are being conducted as necessary. The FOST documents have begun and will be completed during FY 2006.

GOALS: In order to protect public health and the environment and to facilitate reuse of this closed military base, the Project Team agree to the following long term goals:

- All ROD/RAPs will be completed by 2003.
- Complete construction of all remedial actions by 2005.
- Establish and implement Long-Term Monitoring Programs required by the ROD/RAP.
- Implement any institutional controls required by the ROD/RAP.
- Phase out RAB activities in the year 2006 when all remedial actions are complete.
- Facilitate completion of the base wide or Zone FOST(s) as soon as remediation is completed or in place.

PUBLIC HEALTH AND THE ENVIRONMENT: The Onshore, Site 12, Offshore and Petroleum operable units remedial actions will reduce hazardous substance contamination to be protective of the human health and the environment.

SUMMARY STATUS OF CLEANUP ACTIVITY: All Onshore, Site 12, Offshore and Petroleum operable units remedial actions are planned to be constructed by September 2006.

DTSC Project Manager _____ Phone _____

USEPA Project Manager _____ Phone _____

DoD Project Manager _____ Phone _____

RWQCB Project Manager _____ Phone _____

Date of Plan: _____

DRAFT
Revision 0
Last Revision: 11/14/00

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

Naval Station Treasure Island
Service: US Navy
Funding Source: BRAC III

FY 2000/01 – July 1, 2000 to June 30, 2001

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
No Action Sites 3, 5, 7 & 17			
Draft Final SI NA Documentation	5/24/01		
Onshore RI Sites 8, 9 & 10			
AI Draft Final WP/QAPP	3/16/01		
AI Final WP/QAPP	6/06/01		
Onshore RI Site 11			
AI Draft Final WP/QAPP	3/02/01		
AI Final WP/QAPP	5/23/01		
Onshore RI Site 12			
AI Draft Final WP/QAPP	3/02/01		
AI Final WP/QAPP	5/23/01		
Draft EE/CA	3/13/01		
Final EE/CA	5/09/01		
Draft EE/CA/AM/RAW/COWP	4/23/01		
Final EE/CA/AM/RAW/COWP	6/22/01		
Onshore RI Site 24			
AI Draft Final WP/QAPP	1/15/01		
AI Final WP/QAPP	4/07/01		
Onshore RI Site 28 & 29			
AI Draft Final WP/QAPP	1/30/01		
AI Final WP/QAPP	4/22/01		
Offshore RI Site 13			
AI Draft Final WP/QAPP	10/24/00		
AI Final WP/QAPP	1/21/01		
Annual Groundwater Monitoring Report for Sites 9, 11, 12, 21, 24			
Draft Annual Groundwater Monitoring Report	2/01 *annual for 5 yrs.*		
Final Annual Groundwater Monitoring Report	4/01 *annual for 5 yrs.*		

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

FY 2001/02 – July 1, 2001 to June 30, 2002

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
No Action Site 1			
Draft Final No Action ROD	7/23/01		
Final No Action ROD	10/21/01		
No Action Sites 3, 5, 7 & 17			
Final SI NA Documentation	8/22/01		
Onshore RI Sites 8, 9 & 10			
Draft Final RI	12/26/01		
Final RI	3/26/02		
Onshore RI Site 11			
Draft Final RI	4/11/02		
Onshore RI Site 12			
Interim RA Phase I	9/20/01		
Interim RA Phase II	12/19/01		
Draft FOSL Debris Areas	4/10/02		
Draft Final RI & FS	6/10/02		
Onshore RI Site 21			
Draft Final RI	10/21/01		
Final RI	1/19/02		
Draft Final FS	5/13/02		
Onshore RI Site 24			
Draft Final RI	5/14/02		
Onshore RI Sites 28 & 29			
Draft Final RI	12/11/01		
Final RI	3/11/02		
Offshore RI Site 13			
Draft Final RI	9/11/01		
Final RI	12/10/01		
Offshore RI Site 27			
Draft Final RI	9/11/01		
Final RI	12/10/01		
Draft Final PP	4/1/02		
Final PP	6/30/02		

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

FY 2002/03 – July 1, 2002 to June 30, 2003

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
Onshore RI Sites 8, 9, & 10			
Draft Final FS	7/17/02		
Final FS	10/15/02		
Draft Final PP	2/04/03		
Final PP	5/05/03		
Draft Final ROD/RAP	6/12/03		
Onshore RI Site 11			
Final RI	7/10/02		
Draft Final FS	10/31/02		
Final FS	1/29/03		
Draft Final PP	5/22/03		
Onshore RI Site 12			
Final FOSL for Debris Areas	7/01/02		
Final RI & FS	9/08/02		
Draft Final PP	2/11/03		
Final PP	5/12/03		
Draft Final ROD	6/19/03		
Onshore RI Site 21			
Final FS	8/11/02		
Draft Final PP	12/02/02		
Final PP	3/02/03		
Draft Final ROD/RAP	4/09/03		
Onshore RI Site 24			
Final RI	8/12/02		
Draft Final FS	12/03/02		
Final FS	3/03/03		
Draft Final PP	3/07/03		
Final PP	6/05/03		
Onshore RI Site 28 & 29			
Draft Final FS	7/02/02		
Final FS	9/30/02		
Draft Final PP	12/23/02		
Final PP	3/23/03		
Draft Final ROD/RAP	4/30/03		
Offshore RI Site 13			
Draft Final FS	4/02/02		
Final FS	7/01/02		
Draft Final PP	9/23/02		
Final PP	12/22/02		
Draft Final ROD/RAP	1/29/03		
Final ROD/RAP	4/29/03		
Offshore RI Site 27			
Draft Final ROD/RAP	8/7/02		
Final ROD/RAP	11/05/02		

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

FY 2003/04 – July 1, 2003 to June 30, 2004

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
Onshore RI Sites 8 & 9			
Final ROD/RAP	9/10/03		
Remedial Action	4/30/04		
Onshore RI Sites 10			
Final ROD/RAP	9/10/03		
Onshore RI Site 11			
Final PP	8/20/03		
Draft Final ROD/RAP	9/29/03		
Final ROD/RAP	12/28/03		
Draft Final RD	4/19/04		
Onshore RI Site 12			
Final ROD	9/17/03		
Onshore RI Site 21			
Final ROD/RAP	7/08/03		
Draft Final RD	10/29/03		
Final RD	1/27/04		
Onshore RI Site 24			
Draft Final ROD/RAP	7/14/03		
Final ROD/RAP	10/12/03		
Draft Final RD	2/2/04		
Final RD	5/2/04		
Onshore RI Site 28			
Final ROD/RAP	7/29/03		
Onshore RI Site 29			
Final ROD/RAP	7/29/03		
Draft Final RD	11/19/03		
Final RD	2/17/04		
Remedial Action	5/17/04		
Offshore RI Site 13			
Draft Final RD	8/20/03		
Final RD	11/18/03		

FY 2004/05 – July 1, 2004 to June 30, 2005

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
Onshore RI Site 11			
Final RD	7/18/04		
Remedial Action	3/25/05		
Draft Final RA Reports	5/25/05		
Onshore RI Site 21			
Remedial Action	1/26/05		
Draft Final RA Reports	3/28/05		
Final RA Reports	6/18/05		
Onshore RI Site 24			
Remedial Action	5/02/05		
Onshore RI Site 29			
Draft Final RA Reports	7/19/04		
Final RA Reports	10/09/04		
Offshore RI Site 13			
Remedial Action	7/25/04		
Draft Final RA Reports	9/24/04		
Final RA Reports	12/15/04		

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

FY 2005/06 – July 1, 2005 to June 30, 2006

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
Onshore RI Site 11			
Final RA Reports	8/15/05		
Onshore RI Site 24			
Draft Final RA Reports	7/04/05		
Final RA Reports	9/24/05		

FULL SCHEDULE
WORK PLAN TABLE
2000/01 – 2005/06

CAP & Pipeline Document Schedule

DOCUMENT	ORIGINAL DATE	REVISION 1 DATE	REVISION 2 DATE
Inactive Fuel Pipeline Sites			
Draft Final WP/QAPP	1/31/00		
Draft Final CAP Documentation	10/09/01		
Final CAP Documentation	4/08/02		
Corrective Action	8/31/03		
CAP Sites 4,6,14/22, 16, 19, & 20			
Draft Final CAP Documentation	10/27/01		
Final CAP Documentation	4/24/02		
Corrective Action	12/13/02		
CAP Sites 15 & 25			
Draft Final CAP Documentation	10/27/01		
Final CAP Documentation	4/24/02		
Corrective Action	9/14/03		
Annual Groundwater Monitoring Report for Sites 6, 14/22, 15, 25			
Draft Annual Groundwater Monitoring Report	2/01 *annual for 5 yrs.*		
Final Annual Groundwater Monitoring Report	4/01 *annual for 5 yrs.*		

ITEM I

FFSRA SCHEDULE DATES
DRAFT TO AGENCY
NOVEMBER 14, 2000

Naval Station Treasure Island
Service: U.S. Navy
Funding Source: BRAC III

CERCLA Primary Documents	Date Complete
No Action Sites 1	
ROD	10/21/01
FOST	5/12/02
No Action Sites 3, 5, 7, & 17	
SI	8/22/01
FOST (no FOST for sites 5 & 17)	3/13/02
Onshore RI Sites	
Sites 8 & 9	
RI	3/26/02
FS	10/15/02
ROD/RAP	9/10/03
FOST	11/21/04
Site 10	
RI	3/26/02
FS	10/15/02
ROD/RAP	9/10/03
FOST	3/31/04
Site 11	
RI	07/10/02
FS	01/29/03
ROD/RAP	12/28/03
RD	07/18/04
FOST	03/06/06
Site 12	
RI	9/08/02
FS	9/08/02
ROD/RAP	9/17/03
FOST	3/24/04
Site 21	
RI	01/19/02
FS	08/11/02
ROD/RAP	07/08/03
RD	01/27/04
FOST	1/08/06
Site 24	
RI	8/12/02
FS	3/03/03
ROD/RAP	10/12/03
RD	5/02/04
FOST	4/16/06
Site 28	
RI	3/11/02
FS	9/30/02

FFSRA SCHEDULE DATES
DRAFT TO AGENCY
NOVEMBER 14, 2000

ROD/RAP	7/29/03
FOST	2/17/04
Site 29	
RI	3/11/02
FS	9/30/02
ROD/RAP	7/29/03
RD	2/17/04
FOST	10/05/05
Offshore RI Sites	
Site 13	
RI	12/10/01
FS	7/01/02
ROD/RAP	5/27/03
RD	12/16/03
FOST	8/03/05
Site 27	
RI	12/10/01
ROD/RAP	11/05/02
FOST	5/27/03

FFSRA SCHEDULE DATES
DRAFT TO AGENCY
NOVEMBER 14, 2000

Naval Station Treasure Island
Service: U.S. Navy
Funding Source: BRAC III

Petroleum Program Primary Documents	Date Complete
CAP Sites 4, 6, 14/22, 15, 16, 19, 20, 25	
Final CAP Documentation (all sites)	4/24/02
FOST	
Site 4, 6, 16, 19, 20	7/06/03
Site 14/22	4/08/03
Site 15 & 25	4/04/04
Inactive Fuel Pipeline Sites	
CAP	4/08/02
FOST	4/17/04

ATTACHMENT 3

OFFSHORE WORK PLAN HANDOUTS

(4 Pages)

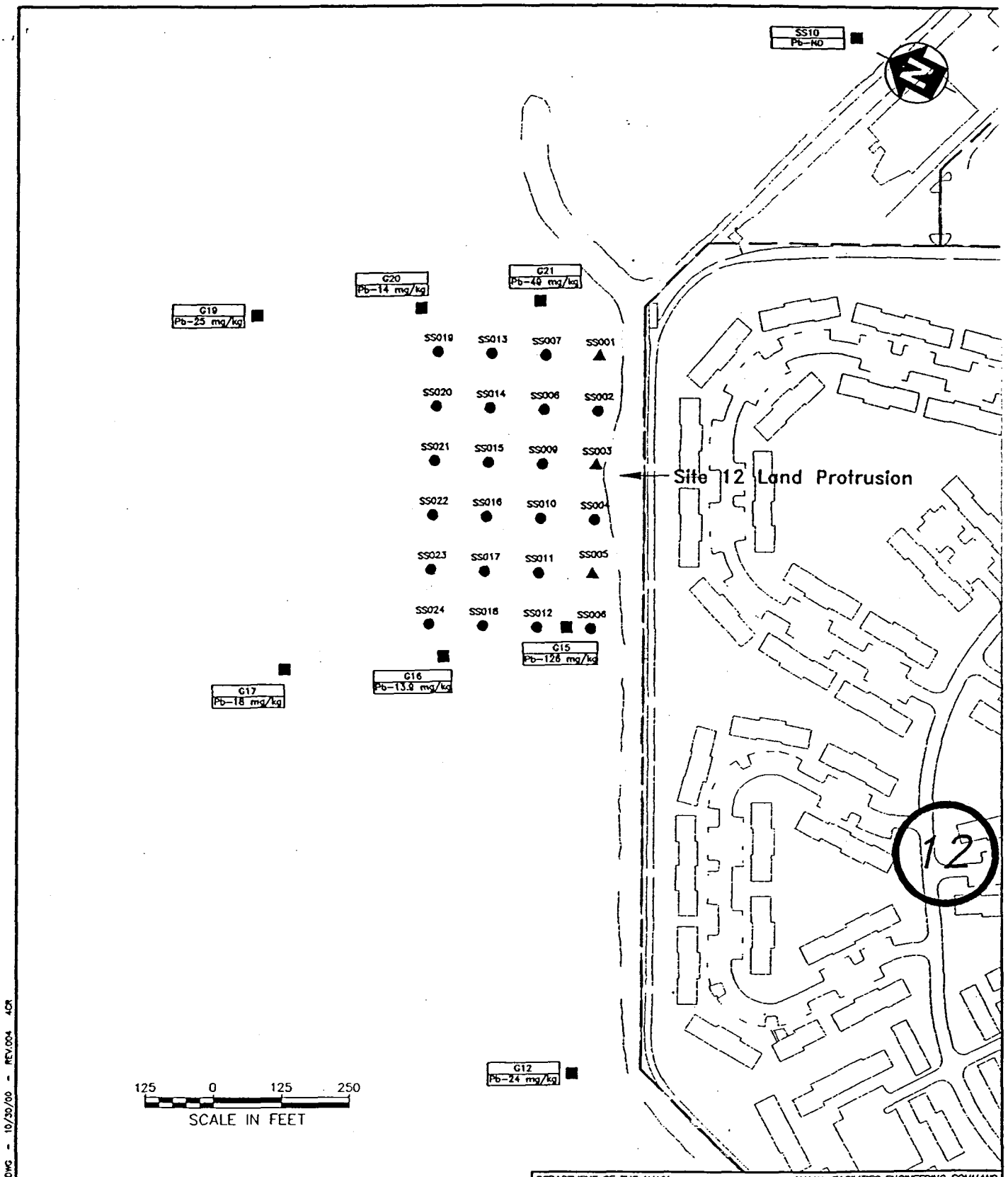
Date Draft: December 21, 2000
Date Final: May 1, 2001

TABLE A-2

DATA QUALITY OBJECTIVES FOR ADDITIONAL OFFSHORE SAMPLING AT NAVSTA TI

Data Quality Objectives Process Steps						
1	2	3	4	5	6	7
State the Problem	**Identify the Decisions**	**Identify Inputs to the Decisions**	**Define Study Boundaries**	**Develop Decision Rules**	**Specify Tolerable Limits on Error**	**Optimize Sampling Design**
Aerial photos of the northern shoreline of NAVSTA TI show the appearance of a land protrusion between 1950 and 1958. The origin of this land protrusion from the northern shoreline is unknown. Aerial photos also show debris along the northern shoreline from 1950 through 1968. In the 1969 aerial photo, debris piles were gone. The land protrusion from the northern shoreline is also referred to as the Site 12 Offshore Area of Concern (AOC). There is regulatory concern that the land protrusion from the northern shoreline may be the result of debris having been pushed offshore. High concentrations of lead have been detected onshore in debris test holes adjacent to the Site 12 Offshore AOC; the maximum concentration detected was 17,400 mg/kg. Although the maximum concentration of lead detected in the Site 12 Offshore AOC was only 126 mg/kg, the sampling density was not sufficient to conclude that lead concentrations are not elevated in the offshore AOC. If lead concentrations are elevated, then sediments may pose a risk to ecological receptors. However, if lead is not elevated in the top 2 feet of sediment, the risk posed to ecological receptors would be minimal due to limited exposure. Based on the LTMS, it is estimated from 1 to 6 feet of sediment may have accreted in the AOC since 1958. Conversely, grain size data and a 15-foot bore collected in the Site 12 Offshore AOC in 1990 by Geomatrix as part of a dike stability study, suggest the AOC is erosional. Sediment accretion or erosion and vertical mixing will be estimated to better understand the sediment dynamics of the Site 12 Offshore AOC.	The principal study questions are: 1. Are lead concentrations in the Site 12 Offshore AOC elevated above screening values? See 'Inputs to the Decision' for a discussion values. 2. Do the sediment dynamics in the Site 12 Offshore AOC favor deposition or erosion? What is the degree and depth of vertical mixing of the sediment in the Site 12 Offshore AOC?	<u>Inputs to address Question 1:</u> 1. Lead concentration in surface sediment (0 – 2 feet) measured using EPA XRF methods in samples from proposed locations 2. Screening values for sediments: (1) San Francisco Bay ambient concentration for lead (SF Bay RWQCB, 1998) and (2) Lead ER-M (Long and others 1995) <u>Inputs to address Question 2:</u> 1. Detailed geologic description of sediment cores. 2. ^{210}Pb and ^{137}Cs radioisotope profiles 3. Grain size analysis	1. The horizontal limits of this study are the sides of a 500- by 300-foot rectangle covering the Site 12 Offshore AOC. The longer side of the rectangle is parallel to the shoreline. 2. The vertical limit of Study 1 (lead analysis), is surface sediments 0 – 2 feet). 3. The vertical limit of Study 2 (sediment deposition), is 10 feet. Radioisotopes and grain size will be measured in samples from 1 cm intervals every 10 cm to a depth of 100 cm. A geologic description of the core will be recorded in 15 cm intervals for the length of the core.	<u>Decision rules for Question 1:</u> (1a) If lead concentrations in sediments are below the ER-M in 85 percent or more of the samples, then this will indicate no further action (NFA). The results of Study 2 will be used to support the NFA recommendation. (1b) If lead concentrations in sediments are above the ER-M in greater than 15% of the samples, then this will indicate that further investigation will be considered. <u>Decision rules for Question 2:</u> (2a) If fine-grained sediment in sample stratum is greater than 50% and radioisotope depth profiles provide evidence of continual sediment deposition or vertical mixing, then sediment will be dated and accumulation rate will be determined. Based on observed peak (if any) of ^{137}Cs concentrations (occurred in 1963), the sediment stratum will be dated. Accumulation rates will be evaluated using ^{210}Pb activity data. If no peaks in ^{137}Cs concentrations are observed and ^{210}Pb activity data suggest active vertical mixing of sediments, then the vertical mixing zone of sediments will be assumed at least 100 cm. (2b) If fine-grained sediment in sample stratum is less than 50% and radioisotope data do not support active sedimentation or vertical mixing, then an erosional environment will be assumed.	<u>Tolerable Limits on Error for Question 1:</u> Achieve 90% probability that a circular lead contaminated area with a radius of 56 feet will be detected <u>Tolerable Limits on Error for Question 2:</u> Cores will be collected for radioisotope analysis at three of the 24 sample locations. Sampling locations for the collection of cores for radioisotope analysis will be based on professional judgment; therefore, a priori specification of tolerable limits on decision errors is not applicable. Sediment dynamics involve complex processes that vary spatially and temporally. Consequently, there are numerous sources of uncertainty in field measurements and models. An underestimate of the sediment accumulation rate could result in a slower rate of burial than predicted. An underestimate of the thickness of the mixed zone could result in an underestimate of the depth at which sediments might be considered to be effectively buried. A potential consequence of these errors would be to recommend leaving potentially contaminated sediments in place, when the potential for remobilization is greater than predicted.	<u>Optimize the sampling design for Question 1:</u> A sampling grid with a spacing of 100 feet will have a 90% probability of detecting a circular contaminated area with a radius of 56 feet. The sampling grid will cover the rectangular area adjacent to the Site 12 bulge and extending 300 feet offshore. Surface sediment samples will be collected at 24 different locations The sampling design was based on methodology described by D.O. Gilbert (Gilbert 1987). <u>Optimize the sampling design for Question 2:</u> Evaluation of trends will be made for individual sediment cores, but conclusions drawn will be limited to specific locations; comparison of trends between locations will be based on a qualitative assessment, and professional judgment

Notes:
EPA - Environmental Protection Agency
RWQCB - Regional Water Quality Control Board
ER-M - Effects range-median
^{137}CS - Cesium-137
LTMS - Long Term Management Strategy
^{210}Pb - Lead-210
XRF - X-ray fluorescence



LEGEND:

- ■ LEAD CONCENTRATIONS OF PREVIOUSLY COLLECTED SAMPLES
- ▲ PROPOSED XRF AND RADIOISOTOPE SAMPLE LOCATIONS,
- ● PROPOSED XRF SAMPLE LOCATIONS
- ND NOT DETECTED

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

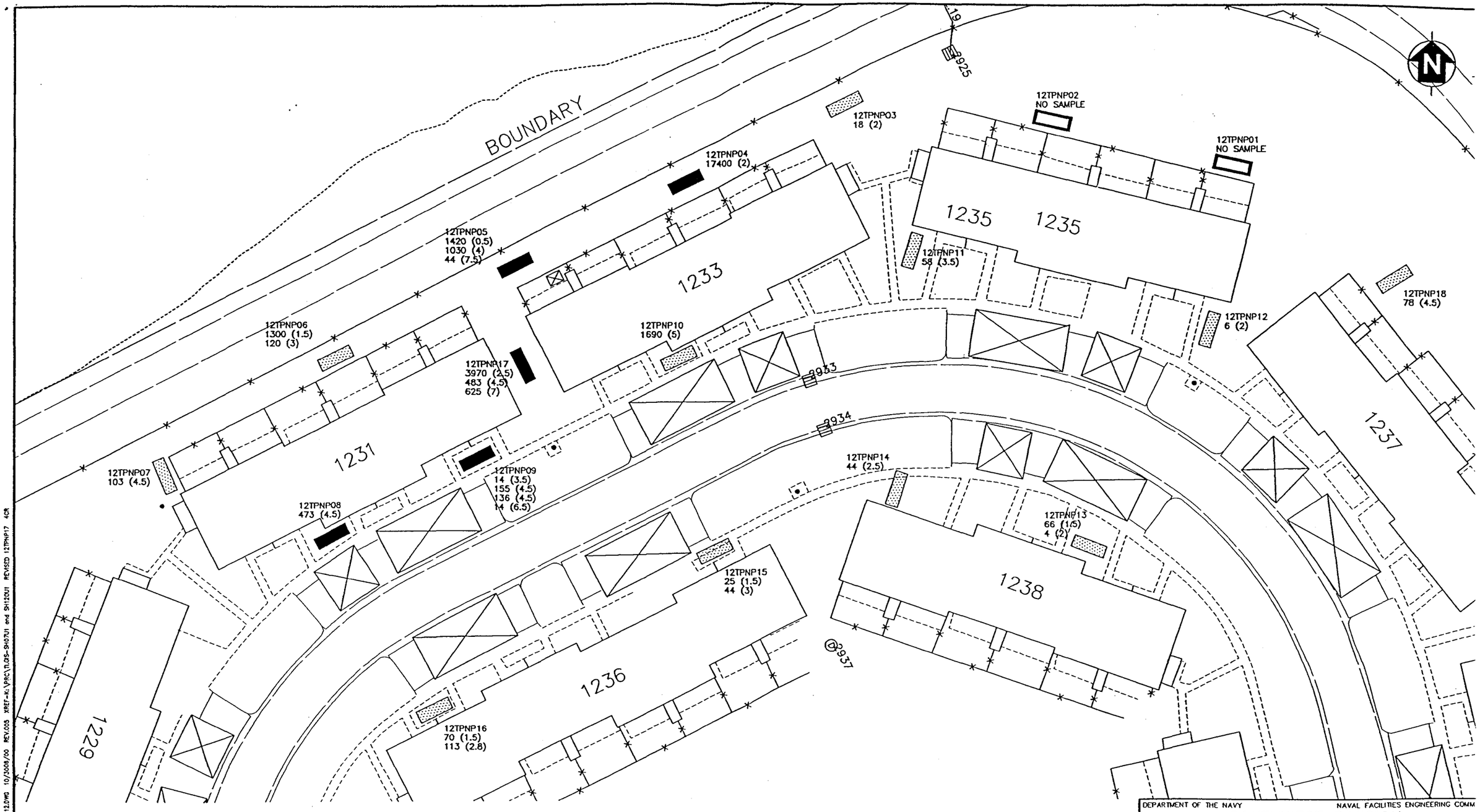
SOUTHWEST DIVISION
SAN DIEGO, CALIFORNIA

NAVAL STATION TREASURE ISLAND — SAN FRANCISCO, CALIFORNIA

Figure 5
NOVEMBER 6, 2000
Site 12 Land Protrusion
PROPOSED SUPPLEMENTAL SAMPLE LOCATIONS
Naval Station Treasure Island

DS.0232.15663

KCH (SF) (089-232) PBCONCENTRATIONS.DWG - 10/30/00 - REV.004 4CR



DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMM

SOUTHWEST DIVISION
SAN DIEGO, CALIFORNIA

NAVAL STATION TREASURE ISLAND — SAN FRANCISCO, CALIFORI

Figure 8.
NOVEMBER 6, 2000
Lead Concentrations
at North Point Drive
Naval Station Treasure Island

DS.0232.15

KCH (SF) G:\PROJ\068-242\ PROPSAMP12.DWG 10/3008/00 REV.003 XREF-N:\PROJ\1.DIS-SHOTUI and SH12001 REVISED 12TPNP17 4CR

SCHEDULE

Milestone	Date
Draft WP, FSP, QAPP submitted to agencies	November 8, 2000
BCT meeting to discuss WP, FSP	November 14, 2000
Agency review/comments of draft WP, FSP, and QAPP and responses	December 8, 2000
Draft final WP, FSP, and QAPP and responses	January 15, 2001
Draft final WP, FSP, and QAPP accepted as final	January 29, 2001
Field investigation	February 12 - 16, 2001
Investigation Technical Memorandum ™	April 30, 2001
BCT meeting to discuss TM	May 15, 2001
Final TM	June 29, 2001
Final RI	August 31, 2001

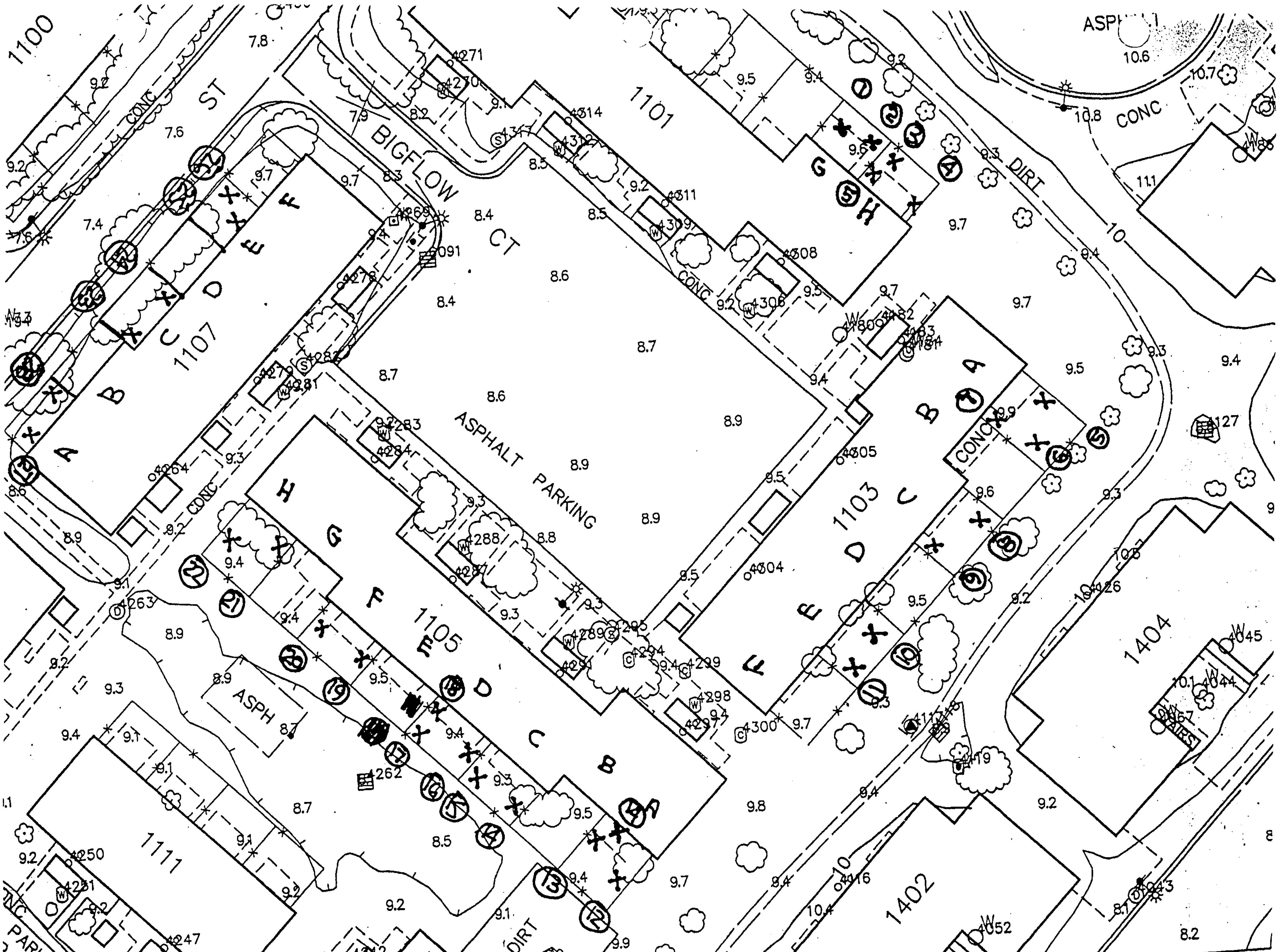
ATTACHMENT 4

BIGELOW-FLOUNDER COURT AT THE FORMER STORAGE YARD
DISCUSSION HANDOUTS

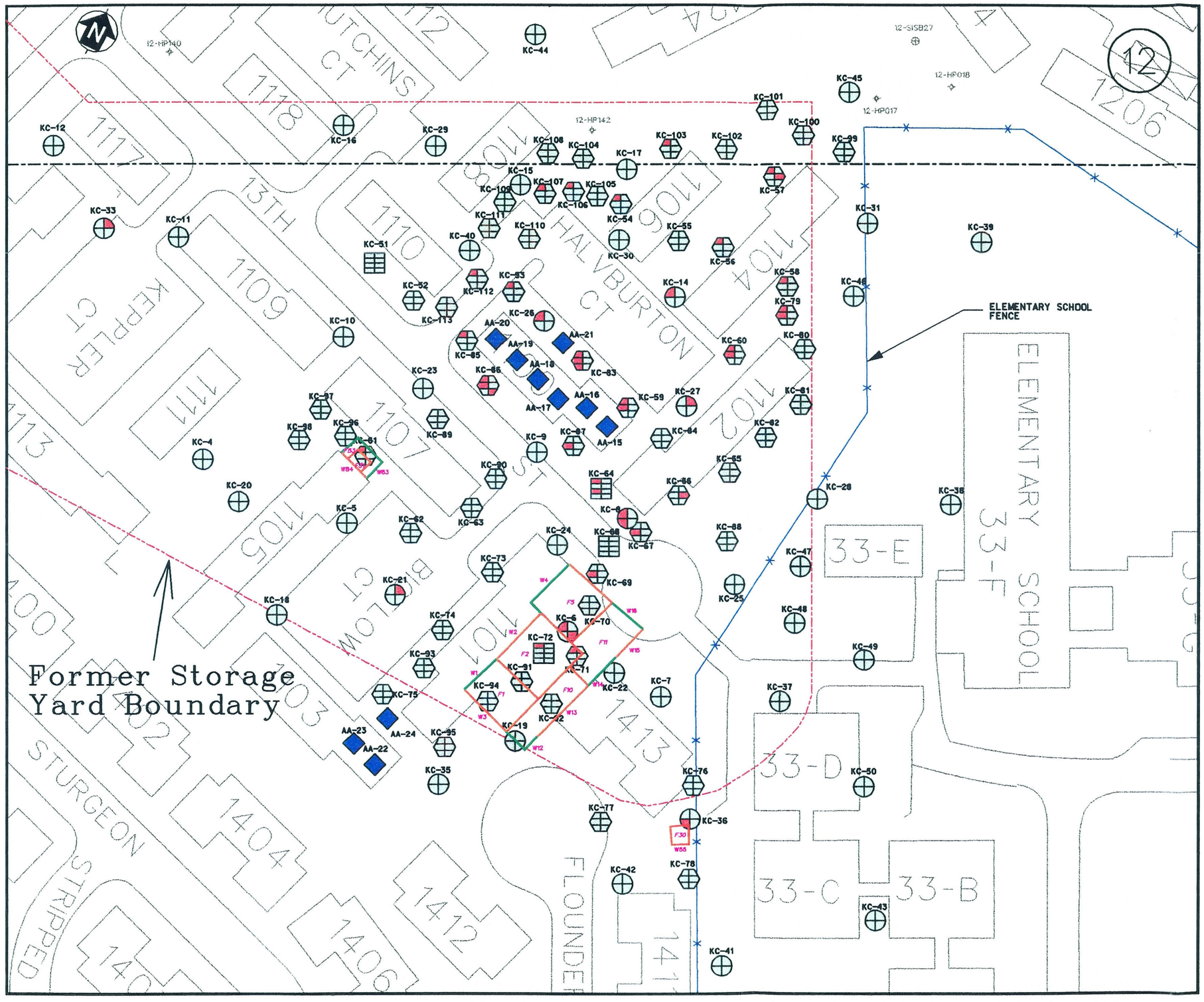
(3 Pages)

TC.0308.10901

Date Draft: December 21, 2000
Date Final: May 1, 2001



1100
ST
CONC
BIGFLOW
CT
1101
1107
ASPHALT PARKING
1105
1103
1404
1111
1402
ASPH
CONC
DIRT



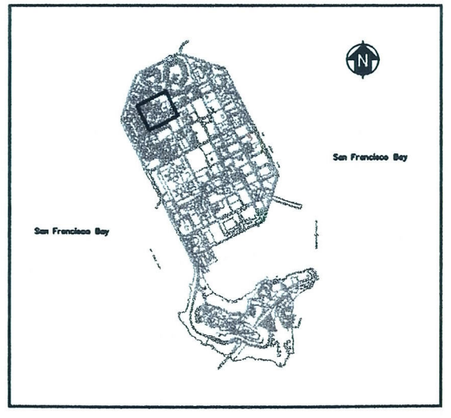
LEGEND

- MONITORING WELL LOCATION
- HYDRAULIC PUNCH LOCATION
- SOIL BORING LOCATION
- SURFACE SOIL LOCATION
- 1996 GEOPROBE LOCATION
- 1997 GEOPROBE LOCATION
- AA-20 AMBIENT AIR SAMPLE LOCATION
- (12) IR SITE
- APPROXIMATE IR SITE 12 BOUNDARY
- AREA OF CONCERN (AOC)
- FENCE LINE
- PCB | BAP — 0.5'-1' bgs, 3.5'-4' bgs — FORMER STORAGE YARD SAMPLE LOCATION WITH 2 DEPTHS
- PCB | BAP — 0.5'-1' bgs, 1.5'-2' bgs, 3.5'-4' bgs — FORMER STORAGE YARD SAMPLE LOCATION WITH 3 DEPTHS
- PCB | BAP — 0.5'-1' bgs, 1.5'-2' bgs, 3.5'-4' bgs, 7.5'-8' bgs — FORMER STORAGE YARD SAMPLE LOCATION WITH 4 DEPTHS
- PCBs < 1 mg/kg
- PCBs -> 1 mg/kg
- BAP Equivalents < 620
- BAP Equivalents -> 620

Note: PCB - Polychlorinated Biphenyl
BAP - Benzo(a) Pyrene equivalents

EXCAVATION FLOORS AND WALLS IN VICINITY OF BIGELOW AND FLOUNDER COURTS

VIEW LOCATION



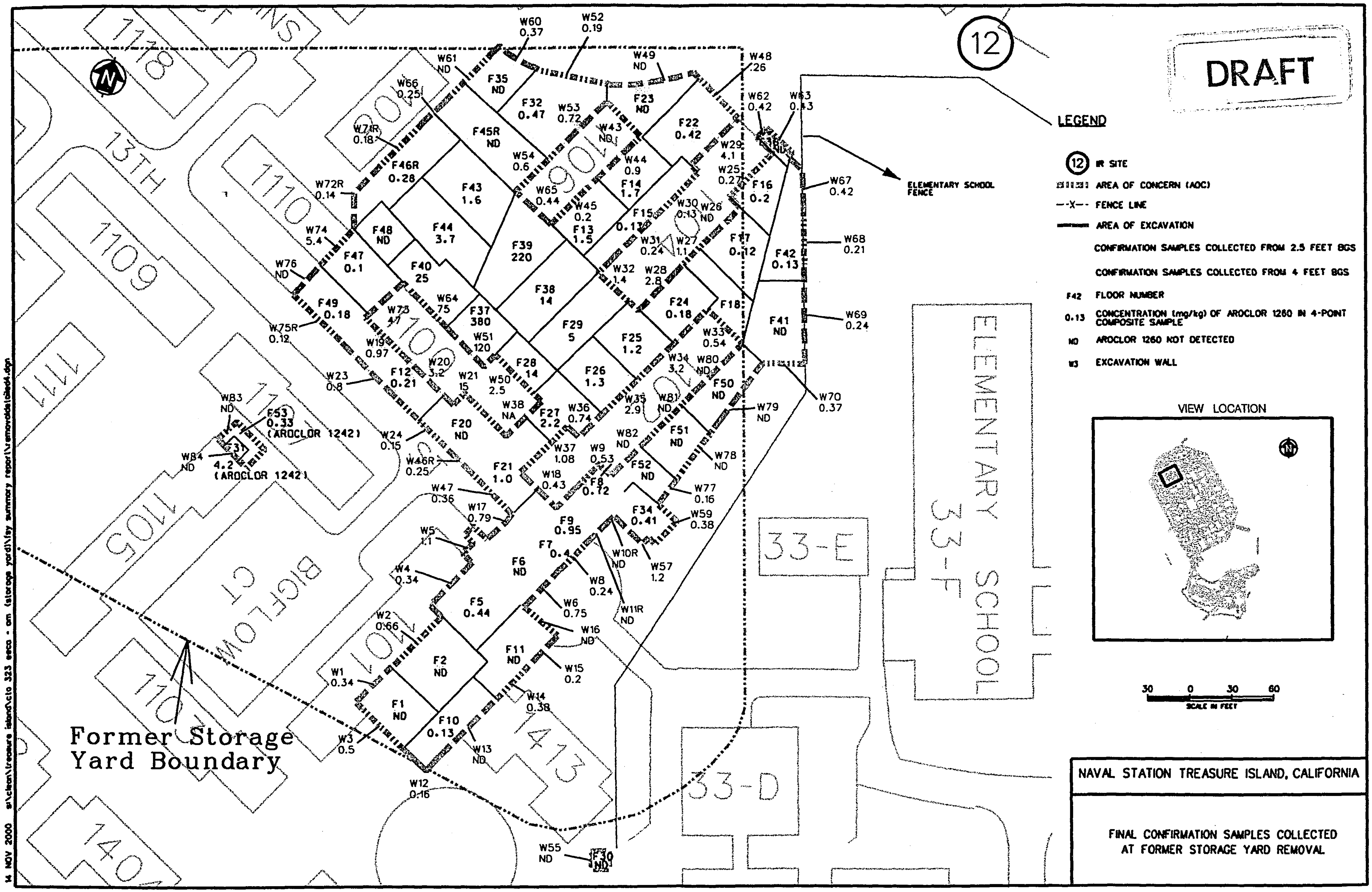
40 0 40 80
SCALE IN FEET

NAVAL STATION TREASURE ISLAND, CALIFORNI

FIGURE 2
AMBIENT AIR SAMPLE LOCATIONS
FORMER STORAGE YARD

11/14/2000 J:\TI\dgn\eto314\ti12_fsy_amair-2.dgn

DS.0369.15

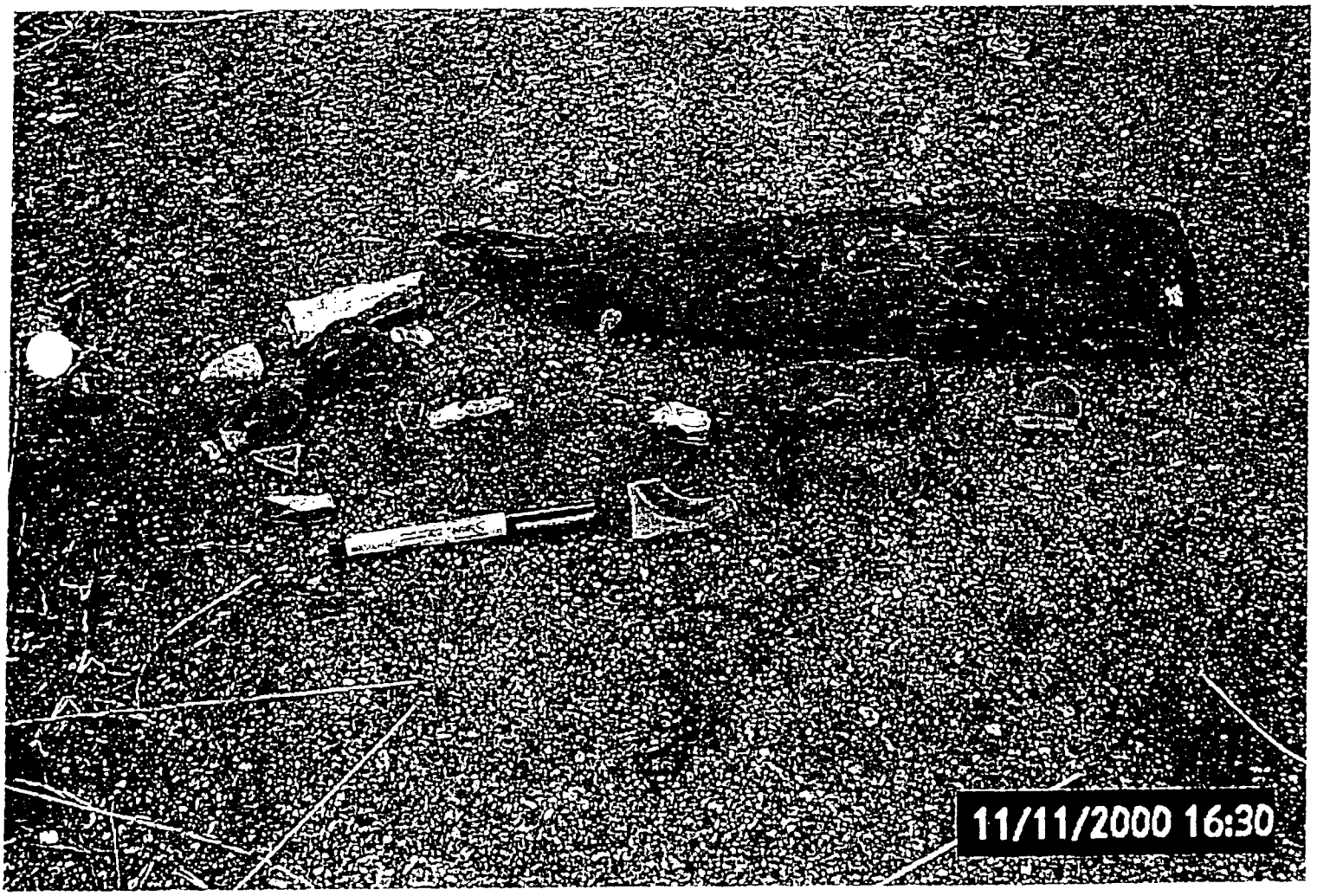

DRAFT
12
LEGEND
IR SITE
AREA OF CONCERN (AOC)
FENCE LINE
AREA OF EXCAVATION
CONFIRMATION SAMPLES COLLECTED FROM 2.5 FEET BGS
CONFIRMATION SAMPLES COLLECTED FROM 4 FEET BGS
F42 FLOOR NUMBER
0.13 CONCENTRATION (mg/kg) OF AROCLOR 1260 IN 4-POINT COMPOSITE SAMPLE
ND AROCLOR 1260 NOT DETECTED
W3 EXCAVATION WALL
VIEW LOCATION
SCALE IN FEET
ELEMENTARY SCHOOL FENCE
ELEMENTARY SCHOOL
33-F
33-E
33-D
13TH
BIGFLOW CT
Former Storage Yard Boundary
NAVAL STATION TREASURE ISLAND, CALIFORNIA
FINAL CONFIRMATION SAMPLES COLLECTED AT FORMER STORAGE YARD REMOVAL

ATTACHMENT 5

COPIES OF BIGELOW-FLOUNDER COURT AREA PHOTOGRAPHS
SHOWING THE CONTENTS OF THE POTHOLES

(14 Pages)

Date Draft: December 21, 2000
Date Final: May 1, 2001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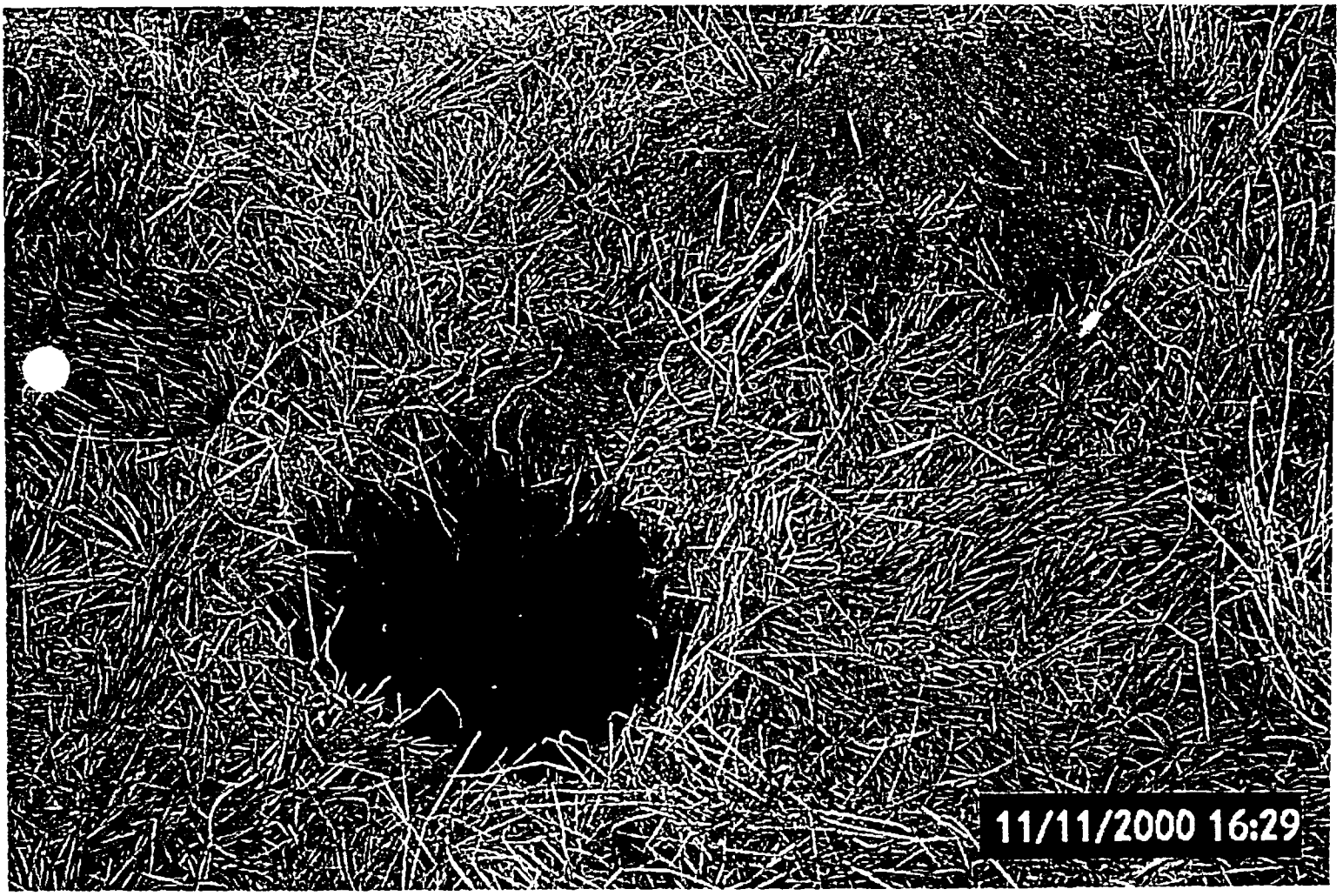
11/11/2000 17:32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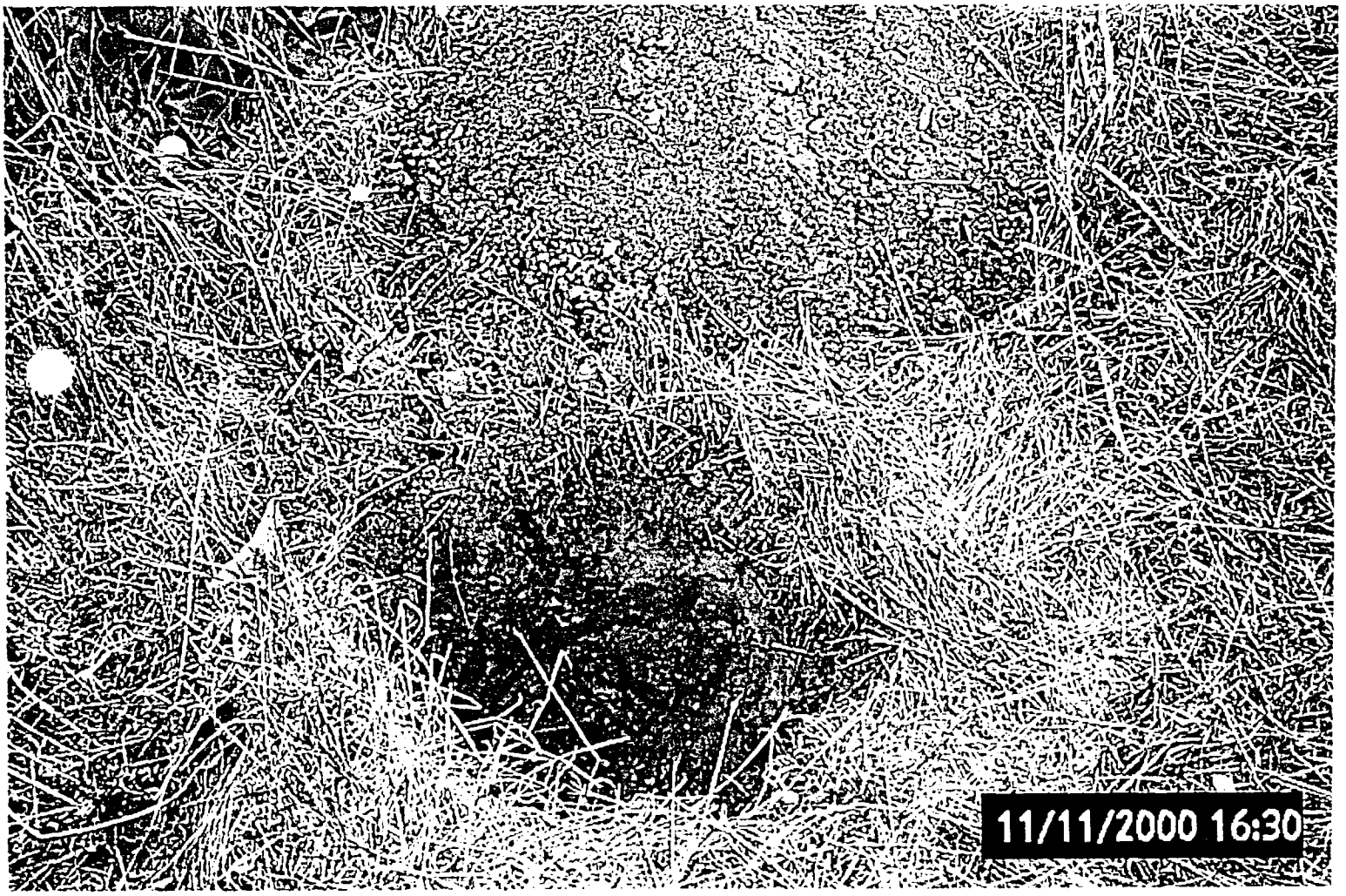
11/11/2000 16:31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11/11/2000 16:34


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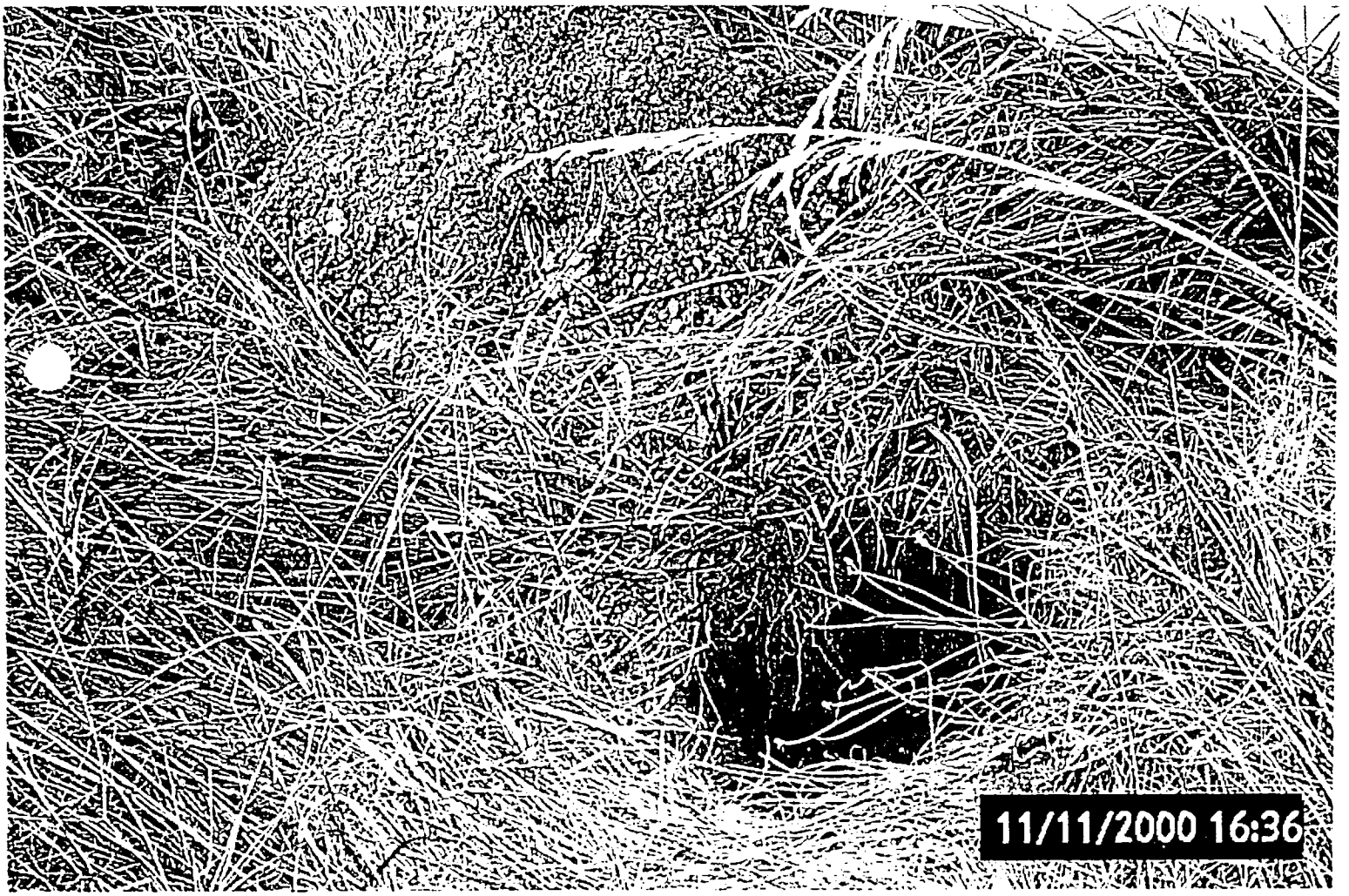
11/11/2000 16:35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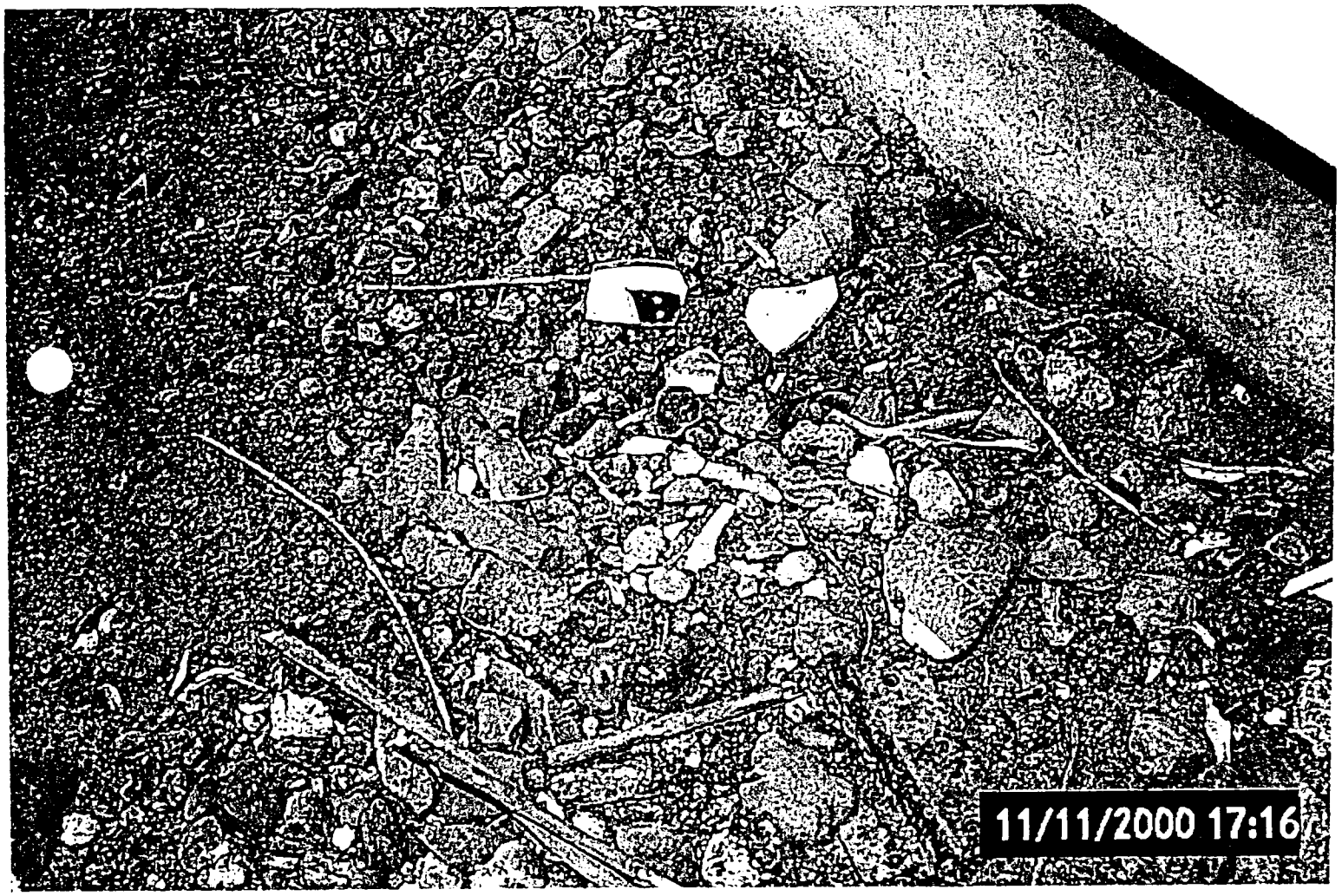
11/11/2000 17:16

ATTACHMENT 6

TABLES SHOWING CHEMICALS OF POTENTIAL CONCERN AT SITE 5 AND SOIL ANALYTICAL RESULTS FOR SITE 5

(21Pages)

Date Draft: December 21, 2000
Date Final: May 1, 2001

TABLE 1
SITE 05 CHEMICAL OF POTENTIAL CONCERN IN SOIL SCREENING
NAVAL STATION TREASURE ISLAND

Chemical	Samples Analyzed	Sample Detections	Detection Limits Exceeding Screen[a]	Detections Exceeding Ambient Value	Maximum Detected Result (mg/kg)	Average Detected Result (mg/kg)	Minimum Detected Result (mg/kg)	Maximum Detection Limit[a] (mg/kg)	Minimum Detection Limit[a] (mg/kg)	Soil Screening Value[b] (mg/kg)	Metals Ambient Value (mg/kg)
ALUMINUM	46	46	0	4	20800	5934.348	2910	0	0	100000	9900
ANTIMONY	46	14	0	10	18.8	7.8229	0.73	12	0.63	820	2.9
ARSENIC	46	36	0	2	22.2	5.7183	0.67	2	0.58	2.7	10
BARIUM	46	34	0	1	352	52.1088	10.8	40	40	100000	260
BERYLLIUM	46	11	0	10	0.47	0.2418	0.06	1	0.02	2200	0.12
CADMIUM	46	16	0	14	9.44	5.0131	0.5	1	0.04	810	1.4
CHROMIUM	46	46	0	2	80.3	36.5326	23.2	0	0	450	75
COBALT	46	35	0	2	20.1	8.6271	2.94	10	10	100000	16
COPPER	46	39	0	1	244	24.9387	4	24.3	6	76000	85
IRON	46	46	0	0	29671	13930.24	5250	0	0	100000	NA
LEAD	46	42	0	2	119	8.45	1.3	0.28	0.25	1000	21
MANGANESE	46	46	0	4	13900	678.663	56.9	0	0	32000	550
MERCURY	51	32	0	3	2.1	0.265	0.06	0.11	0.04	610	0.51
MOLYBDENUM	19	2	0	1	4.1	2.295	0.49	2.4	0.25	10000	2
NICKEL	46	45	0	0	100	35.0191	5.23	8	8	41000	130
SELENIUM	46	1	0	1	0.91	0.91	0.91	1.4	0.62	10000	0.5
SILVER	46	8	0	8	38.9	7.5125	1	2	0.15	10000	0.45
VANADIUM	46	46	0	8	253	30.5087	14.5	0	0	14000	33
ZINC	46	45	0	4	148	42.8311	14.4	23.4	23.4	100000	94
1,1,2,2-TETRACHLOROETHANE	10	0	2	0	ND	NA	ND	1.4	0.011	0.9	
1,1-DICHLOROETHENE	10	0	2	0	ND	NA	ND	1.4	0.011	0.12	
1,2-DICHLOROETHANE	10	0	2	0	ND	NA	ND	1.4	0.011	0.76	
1,2-DICHLOROPROPANE	10	0	2	0	ND	NA	ND	1.4	0.011	0.77	
1,4-DICHLOROBENZENE	11	0	4	0	ND	NA	ND	12	0.2	8.1	
2-METHYLNAPHTHALENE	11	3	0	0	110	53.2333	9.7	12	0.34	NA	
3,3'-DICHLOROBENZIDINE	11	0	4	0	ND	NA	ND	12	0.34	5.5	
ACETONE	39	8	0	0	0.078	0.0271	0.013	1.4	0.01	6200	
ALPHA-CHLORDANE	30	1	0	0	0.018	0.018	0.018	0.017	0.017	11	
ANTHRACENE	11	2	0	0	15	10.85	6.7	12	0.34	100000	
BENZO(A)ANTHRACENE	11	0	4	0	ND	NA	ND	12	0.34	2.9	
BENZO(A)PYRENE	11	0	11	0	ND	NA	ND	12	0.34	0.29	
BENZO(B)FLUORANTHENE	11	0	6	0	ND	NA	ND	12	0.34	2.9	
BIS(2-CHLOROETHYL)ETHER	11	0	4	0	ND	NA	ND	12	0.34	0.62	
CARBON TETRACHLORIDE	10	0	2	0	ND	NA	ND	1.4	0.011	0.53	
CHLOROFORM	10	0	2	0	ND	NA	ND	1.4	0.011	0.52	
CIS-1,3-DICHLOROPROPENE	10	0	2	0	ND	NA	ND	1.4	0.011	0.18	
DIBENZ(A,H)ANTHRACENE	11	0	11	0	ND	NA	ND	12	0.34	0.29	
DIBENZOFURAN	11	1	0	0	11	11	11	12	0.34	5100	
FLUORENE	11	2	0	0	14	9.95	5.9	12	0.34	33000	
HEXACHLOROBENZENE	11	0	4	0	ND	NA	ND	12	0.34	1.5	
INDENO(1,2,3-CD)PYRENE	11	0	6	0	ND	NA	ND	12	0.34	2.9	
N-NITROSO-DI-N-PROPYLAMINE	11	0	7	0	ND	NA	ND	12	0.34	0.35	
PENTACHLOROPHENOL	11	0	4	0	ND	NA	ND	29	0.84	11	
PERCENT SOLID	12	12	0	0	95.8	86.375	56.8	0	0	NA	
PHENOL	11	4	0	0	2.9	1.905	0.42	12	0.34	100000	
TOLUENE	39	1	0	0	0.013	0.013	0.013	1.4	0.01	520	
TRANS-1,3-DICHLOROPROPENE	10	0	2	0	ND	NA	ND	1.4	0.011	0.18	
VINYL CHLORIDE	10	0	4	0	ND	NA	ND	1.4	0.011	0.049	
DIESEL RANGE ORGANICS	41	21	0	0	26000	2713.357	6.5	18	10	NA	
GASOLINE RANGE ORGANICS	40	9	0	0	560	127.7944	0.46	1	0.53	NA	
MOTOR OIL RANGE ORGANICS	10	6	0	0	3600	1356.667	270	590	12	NA	

Notes:

mg/kg Milligram per kilogram
NA Not applicable
ND Not detected

a Only detection limits of nondetect samples have been included in this statistic.

b Soil screening values represent the 1999 U.S. Environmental Protection Agency Region 9 preliminary remediation goal for protection of workers.

TABLE 2
SITE F2B CHEMICAL OF POTENTIAL CONCERN IN SOIL SCREENING
NAVAL STATION TREASURE ISLAND

Chemical	Samples Analyzed	Sample Detections	Detection Limits Exceeding Screen[a]	Detections Exceeding Ambient Value	Maximum Detected Result (mg/kg)	Average Detected Result (mg/kg)	Minimum Detected Result (mg/kg)	Maximum Detection Limit[a] (mg/kg)	Minimum Detection Limit[a] (mg/kg)	Soil Screening Value[b] (mg/kg)
1,1-DICHLOROETHENE	98	0	2	0	ND	NA	ND	0.73	0.0047	0.12
1,3-DICHLOROBENZENE	17	0	1	0	ND	NA	ND	54	0.0005	52
1,4-DICHLOROBENZENE	17	0	4	0	ND	NA	ND	54	0.0005	8.1
2-BUTANONE	98	1	0	0	0.016	0.016	0.016	1.5	0.0095	28000
2-METHYLNAPHTHALENE	12	3	0	0	71	27.355	0.065	44	0.34	NA
2-NITROANILINE	12	0	3	0	ND	NA	ND	270	0.86	50
3,3'-DICHLOROBENZIDINE	12	0	7	0	ND	NA	ND	110	0.34	5.5
ACENAPHTHENE	101	3	0	0	23	9.1333	1.6	100	0.053	38000
ACETONE	98	1	0	0	0.048	0.048	0.048	2.9	0.019	6200
ANTHRACENE	101	5	0	0	31	14.26	1.1	44	0.053	100000
BENZO(A)ANTHRACENE	101	6	6	0	120	25.3558	0.095	44	0.053	2.9
BENZO(A)PYRENE	101	3	19	0	100	33.8	0.2	110	0.053	0.29
BENZO(B)FLUORANTHENE	12	0	7	0	ND	NA	ND	110	0.34	2.9
BENZO(B,K)FLUORANTHENE	89	2	0	0	180	90.125	0.25	25	0.053	NA
BENZO(G,H,I)PERYLENE	101	2	0	0	42	21.095	0.19	110	0.053	NA
BENZO(K)FLUORANTHENE	12	0	3	0	ND	NA	ND	110	0.34	29
BIS(2-CHLOROETHYL)ETHER	12	0	7	0	ND	NA	ND	110	0.34	0.62
CARBON DISULFIDE	98	7	0	0	0.011	0.0058	0.0031	0.73	0.0047	720
CARBON TETRACHLORIDE	98	0	1	0	ND	NA	ND	0.73	0.0047	0.53
CHLOROFORM	98	0	1	0	ND	NA	ND	0.73	0.0047	0.52
CHRYSENE	101	7	0	0	130	26.5071	0.15	25	0.053	290
CIS-1,3-DICHLOROPROPENE	98	0	1	0	ND	NA	ND	0.73	0.0047	0.18
DIBENZ(A,H)ANTHRACENE	101	1	20	0	7.3	7.3	7.3	110	0.053	0.29
ETHYLBENZENE	105	1	0	0	0.001	0.001	0.001	0.73	0.0005	230
FLUORANTHENE	101	5	0	0	200	45.288	0.34	100	0.053	30000
FLUORENE	101	7	0	0	29	9.9714	3.3	25	0.053	33000
HEXACHLOROBENZENE	12	0	7	0	ND	NA	ND	110	0.34	1.5
HEXACHLOROBUTADIENE	12	0	3	0	ND	NA	ND	110	0.34	32
INDENO(1,2,3-CD)PYRENE	101	2	9	0	48	24.08	0.16	110	0.053	2.9
I-NITROSO-DI-N-PROPYLAMINE	12	0	11	0	ND	NA	ND	110	0.34	0.35
NAPHTHALENE	101	1	0	0	35	35	35	100	0.053	190
PENTACHLOROPHENOL	12	0	7	0	ND	NA	ND	270	0.86	11
PERCENT MOISTURE	12	12	0	0	35	13.5833	5	0	0	NA
PHENANTHRENE	101	8	0	0	84	31.8013	0.21	25	0.053	NA
PYRENE	101	7	0	0	150	36.4614	0.43	25	0.053	54000
TETRACHLOROETHENE	98	2	0	0	0.014	0.0125	0.011	0.73	0.0047	19
TOLUENE	105	2	0	0	0.005	0.0045	0.004	0.73	0.0005	520
TRANS-1,3-DICHLOROPROPENE	98	0	1	0	ND	NA	ND	0.73	0.0047	0.18
VINYL CHLORIDE	98	0	3	0	ND	NA	ND	1.5	0.0095	0.049
XYLENE (TOTAL)	105	3	0	0	0.0085	0.0052	0.001	0.73	0.001	210
DIESEL RANGE ORGANICS	112	23	0	0	16000	3097.391	13	51	11	NA
GASOLINE RANGE ORGANICS	105	5	0	0	1300	316.32	0.6	1.3	0.2	NA
MOTOR OIL RANGE ORGANICS	112	22	0	0	17000	3150.864	53	290	11	NA

Notes:

mg/kg Milligram per kilogram
NA Not applicable
ND Not detected

a Only detection limits of nondetect samples have been included in this statistic.

b Soil screening values represent the 1999 U.S. Environmental Protection Agency Region 9 preliminary remediation goal for protection of workers.

Soil Analytical Results - Site 05
Naval Station Treasure Island

Sample ID	199GG096	199GG101	199GG110	199GG115	199GG118	199GG120	199GG122
Field ID	05-HP001	05-HP003	05-HP006	05-HP007	05-HP008	05-HP009	05-HP010
Date Sampled	09/30/1995	09/30/1995	10/11/1995	10/11/1995	10/11/1995	10/11/1995	10/11/1995
Sample Depth (in feet)	3.25 - 3.75	1.00 - 1.50	0.25 - 0.75	5.25 - 5.75	5.50 - 6.00	3.00 - 3.50	0.50 - 1.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	9.7 J g	-- (0.58)	-- (0.34)	110 (23)	40 (11)	-- (0.35)	-- (0.35)
ACENAPHTHENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
ACENAPHTHYLENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
ANTHRACENE	-- (12)	-- (0.58)	-- (0.34)	15 (11)	6.7 J g	-- (0.35)	-- (0.35)
BENZO(A)ANTHRACENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
BENZO(A)PYRENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
BENZO(B)FLUORANTHENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
BENZO(G,H,I)PERYLENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
BENZO(K)FLUORANTHENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
CHRYSENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
DIBENZ(A,H)ANTHRACENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
FLUORANTHENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
FLUORENE	-- (12)	-- (0.58)	-- (0.34)	14 (11)	5.9 J g	-- (0.35)	-- (0.35)
INDENO(1,2,3-CD)PYRENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (3.5)	-- (3.5)
NAPHTHALENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
PHENANTHRENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)
PYRENE	-- (12)	-- (0.58)	-- (0.34)	-- (11)	-- (11)	-- (0.35)	-- (0.35)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(0.34) = Detection limit
Detection over screening value
Detection limit > screening value

Applicable Comments:

a - *Surrogate recovery problem*
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - *Field blank contamination problem*
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site 05
Naval Station Treasure Island

Sample ID	199GG126	199GG130	199GG005	WELL#1
Field ID	05-HP012	05-HP013	05-TP03	UNKNOWN
Date Sampled	10/11/1995	10/12/1995	07/11/1995	02/25/2000
Sample Depth (in feet)	3.50 - 4.00	5.75 - 6.25	0.00 - 0.00	0.00 - 0.00
PAH (in MG/KG)				
2-METHYLNAPHTHALENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
ACENAPHTHENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
ACENAPHTHYLENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
ANTHRACENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
BENZO(A)ANTHRACENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
BENZO(A)PYRENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
BENZO(B)FLUORANTHENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
BENZO(G,H,I)PERYLENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
BENZO(K)FLUORANTHENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
CHRYSENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
DIBENZ(A,H)ANTHRACENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
FLUORANTHENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
FLUORENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
INDENO(1,2,3-CD)PYRENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
NAPHTHALENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
PHENANTHRENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)
PYRENE	-- (0.35)	-- (0.38)	-- (12)	-- (0.39)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(0.34) = Detection limit
Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	031TD2008	031TD2009	031TD2010	031TD2011	031TD2020	031TF2009	031TF2010
Field ID	031TD2008	031TD2009	031TD2010	031TD2011	031TD2020	031TF2009	031TF2010
Date Sampled	10/23/1997	10/23/1997	10/23/1997	10/23/1997	12/02/1997	11/12/1997	11/12/1997
Sample Depth (in feet)	3.00 - 3.50	2.50 - 3.00	3.75 - 4.25	4.75 - 5.25	3.50 - 4.00	7.50 - 8.00	7.50 - 8.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	-- (7.3)	-- (0.34)	-- (17)	0.065 J g	-- (0.37)	-- (0.37)	-- (0.43)
ACENAPHTHENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
ACENAPHTHYLENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
ANTHRACENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
BENZO(A)ANTHRACENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
BENZO(A)PYRENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
BENZO(B)FLUORANTHENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
BENZO(G,H,I)PERYLENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
BENZO(K)FLUORANTHENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
CHRYSENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
DIBENZ(A,H)ANTHRACENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
FLUORANTHENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
FLUORENE	-- (7.3)	-- (0.34)	5.4 J g	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
INDENO(1,2,3-CD)PYRENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
NAPHTHALENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
PHENANTHRENE	-- (7.3)	-- (0.34)	3.6 J g	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)
PYRENE	-- (7.3)	-- (0.34)	-- (17)	-- (0.36)	-- (0.37)	-- (0.37)	-- (0.43)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	031TF2011	031TF2012	031TF2013	031TF2014	031TF2015	262D2201	262D2205
Field ID	031TF2011	031TF2012	031TF2013	031TF2014	031TF2015	TD2HP018	TD2HP019
Date Sampled	01/26/1998	01/26/1998	01/26/1998	01/26/1998	01/27/1998	03/08/2000	03/07/2000
Sample Depth (in feet)	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	2.00 - 2.50	2.00 - 3.00	2.00 - 3.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	11 J g	71 J g	-- (44)	-- (10)	-- (12)	NA	NA
ACENAPHTHENE	-- (100)	23 J g	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
ACENAPHTHYLENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
ANTHRACENE	17 J g	21 J g	-- (44)	1.2 J g	-- (12)	-- (2.8)	-- (0.054)
BENZO(A)ANTHRACENE	**16 J g**	**13 J g**	-- (44)	2.4 J g	-- (12)	-- (2.8)	-- (0.054)
BENZO(A)PYRENE	-- (100)	-- (110)	-- (44)	**1.2 J g**	-- (12)	-- (2.8)	-- (0.054)
BENZO(B)FLUORANTHENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	NA	NA
BENZO(G,H,I)PERYLENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
BENZO(K)FLUORANTHENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	NA	NA
CHRYSENE	21 J g	24 J g	5.7 J g	3.5 J g	-- (12)	-- (2.8)	-- (0.054)
DIBENZ(A,H)ANTHRACENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
FLUORANTHENE	-- (100)	20 J g	4.4 J g	1.7 J g	-- (12)	-- (2.8)	-- (0.054)
FLUORENE	16 J g	29 J g	4.9 J g	-- (10)	-- (12)	-- (2.8)	-- (0.054)
INDENO(1,2,3-CD)PYRENE	-- (100)	-- (110)	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
NAPHTHALENE	-- (100)	35 J g	-- (44)	-- (10)	-- (12)	-- (2.8)	-- (0.054)
PHENANTHRENE	68 J g	84 J g	20 J g	3.8 J g	-- (12)	-- (2.8)	-- (0.054)
PYRENE	42 J g	46 J g	8.5 J g	6.3 J g	-- (12)	-- (2.8)	-- (0.054)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262D2206	262D2207	262D2209	262D2210	262D2213	262D2214	262D2217
Field ID	TD2HP019	TD2HP019	TD2HP020	TD2HP020	TD2HP021	TD2HP021	TD2HP022
Date Sampled	03/07/2000	03/07/2000	03/08/2000	03/08/2000	03/09/2000	03/09/2000	03/08/2000
Sample Depth (in feet)	7.00 - 8.00	15.50 - 16.00	1.50 - 2.50	7.00 - 8.00	2.50 - 3.50	7.00 - 8.00	2.30 - 3.30
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
ACENAPHTHYLENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
ANTHRACENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
BENZO(A)ANTHRACENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
BENZO(A)PYRENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
DIBENZ(A,H)ANTHRACENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
FLUORANTHENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
FLUORENE	7.3 J c	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
INDENO(1,2,3-CD)PYRENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
NAPHTHALENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
PHENANTHRENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)
PYRENE	-- (1.2)	-- (0.06)	-- (0.054)	-- (0.06)	-- (0.054)	-- (0.061)	-- (0.053)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262D2218	262D2221	262D2222	262D2225	262D2226	262D2229	262D2230
Field ID	TD2HP022	TD2HP023	TD2HP023	TD2HP024	TD2HP024	TD2HP025	TD2HP025
Date Sampled	03/08/2000	03/09/2000	03/09/2000	03/08/2000	03/08/2000	03/08/2000	03/08/2000
Sample Depth (in feet)	7.00 - 8.00	2.50 - 3.00	6.00 - 6.50	2.50 - 3.50	7.00 - 8.00	2.50 - 3.50	7.00 - 8.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.063)	-- (0.055)	-- (0.059)	2.8 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
ACENAPHTHYLENE	-- (0.063)	-- (0.055)	-- (0.059)	-- (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
ANTHRACENE	-- (0.063)	-- (0.055)	-- (0.059)	31 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
BENZO(A)ANTHRACENE	-- (0.063)	-- (0.055)	-- (0.059)	120 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
BENZO(A)PYRENE	-- (0.063)	-- (0.055)	-- (0.059)	100 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.063)	-- (0.055)	-- (0.059)	42 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.063)	-- (0.055)	-- (0.059)	130 J c	-- (0.06)	-- (0.056)	-- (0.06)
DIBENZ(A,H)ANTHRACENE	-- (0.063)	-- (0.055)	-- (0.059)	7.3 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
FLUORANTHENE	-- (0.063)	-- (0.055)	-- (0.059)	200 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
FLUORENE	-- (0.063)	-- (0.055)	-- (0.059)	3.3 J c	-- (0.06)	-- (0.056)	-- (0.06)
INDENO(1,2,3-CD)PYRENE	-- (0.063)	-- (0.055)	-- (0.059)	48 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
NAPHTHALENE	-- (0.063)	-- (0.055)	-- (0.059)	-- (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
PHENANTHRENE	-- (0.063)	-- (0.055)	-- (0.059)	66 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)
PYRENE	-- (0.063)	-- (0.055)	-- (0.059)	150 (2.7)	-- (0.06)	-- (0.056)	-- (0.06)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262D2233	262D2234	262D2301	262D2302	262D2303	262D2305	262D2306
Field ID	TD2HP026	TD2HP026	TD2HP027	TD2HP027	TD2HP027	TD2HP028	TD2HP028
Date Sampled	03/15/2000	03/15/2000	05/12/2000	05/12/2000	05/12/2000	05/11/2000	05/11/2000
Sample Depth (in feet)	4.00 - 4.50	8.00 - 8.50	5.00 - 5.50	5.50 - 6.00	10.50 - 11.00	5.00 - 5.50	8.50 - 9.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
ACENAPHTHYLENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
ANTHRACENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
BENZO(A)ANTHRACENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
BENZO(A)PYRENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
DIBENZ(A,H)ANTHRACENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
FLUORANTHENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
FLUORENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
INDENO(1,2,3-CD)PYRENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
NAPHTHALENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
PHENANTHRENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)
PYRENE	-- (0.062)	-- (0.61)	-- (0.11)	-- (3.4)	-- (0.059)	-- (0.056)	-- (0.061)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262D2309	262D2310	262D2313	262D2314	262D2317	262D2318	262F2061
Field ID	TD2HP029	TD2HP029	TD2HP030	TD2HP030	TD2HP031	TD2HP031	TF2HP016
Date Sampled	05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000	02/11/2000
Sample Depth (in feet)	2.00 - 3.00	6.00 - 7.00	3.00 - 4.00	7.00 - 8.00	3.00 - 4.00	7.50 - 8.00	2.50 - 3.50
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
ACENAPHTHYLENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
ANTHRACENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
BENZO(A)ANTHRACENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
BENZO(A)PYRENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
DIBENZ(A,H)ANTHRACENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
FLUORANTHENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
FLUORENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
INDENO(1,2,3-CD)PYRENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
NAPHTHALENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
PHENANTHRENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)
PYRENE	-- (0.053)	-- (0.06)	-- (0.056)	-- (0.062)	-- (0.053)	-- (0.061)	-- (0.21)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2062	262F2065	262F2066	262F2069	262F2070	262F2073	262F2074
Field ID	TF2HP016	TF2HP017	TF2HP017	TF2HP018	TF2HP018	TF2HP019	TF2HP019
Date Sampled	02/11/2000	02/11/2000	02/11/2000	02/14/2000	02/14/2000	02/11/2000	02/11/2000
Sample Depth (in feet)	7.00 - 8.00	6.00 - 7.00	9.00 - 10.00	4.50 - 5.00	7.50 - 8.00	6.50 - 7.50	10.50 - 11.50
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.057)	-- (0.056)	1.6 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
ACENAPHTHYLENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
ANTHRACENE	-- (0.057)	-- (0.056)	1.1 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
BENZO(A)ANTHRACENE	-- (0.057)	-- (0.056)	0.64 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
BENZO(A)PYRENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.057)	-- (0.056)	1.2 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
DIBENZ(A,H)ANTHRACENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
FLUORANTHENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
FLUORENE	-- (0.057)	-- (0.056)	3.9 J c	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
INDENO(1,2,3-CD)PYRENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
NAPHTHALENE	-- (0.057)	-- (0.056)	-- (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
PHENANTHRENE	-- (0.057)	-- (0.056)	8.8 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)
PYRENE	-- (0.057)	-- (0.056)	2 (0.62)	-- (0.06)	-- (0.064)	-- (0.059)	-- (0.061)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2077	262F2078	262F2081	262F2082	262F2085	262F2086	262F2089
Field ID	TF2HP020	TF2HP020	TF2HP021	TF2HP021	TF2HP022	TF2HP022	TF2HP023
Date Sampled	02/14/2000	02/14/2000	02/14/2000	02/14/2000	02/14/2000	02/14/2000	02/14/2000
Sample Depth (in feet)	6.50 - 7.50	10.50 - 11.50	3.00 - 3.50	7.00 - 7.50	3.00 - 3.50	6.50 - 7.00	3.00 - 4.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
ACENAPHTHYLENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
ANTHRACENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
BENZO(A)ANTHRACENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.095
BENZO(A)PYRENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.2 (0.054)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.19 (0.054)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.15 (0.054)
DIBENZ(A,H)ANTHRACENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
FLUORANTHENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.34 (0.054)
FLUORENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
INDENO(1,2,3-CD)PYRENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.16 (0.054)
NAPHTHALENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	-- (0.054)
PHENANTHRENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.21 (0.054)
PYRENE	-- (0.063)	-- (0.063)	-- (0.054)	-- (0.057)	-- (0.053)	-- (0.058)	0.43 (0.054)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2090	262F2093	262F2097	262F2098	262F2101	262F2102	262F2105
Field ID	TF2HP023	TF2HP024	TF2HP025	TF2HP025	TF2HP026	TF2HP026	TF2HP027
Date Sampled	02/14/2000	02/14/2000	02/14/2000	02/14/2000	02/15/2000	02/15/2000	02/15/2000
Sample Depth (in feet)	7.00 - 8.00	6.50 - 7.50	6.00 - 7.00	10.00 - 11.00	3.00 - 3.50	6.50 - 7.00	3.50 - 4.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
ACENAPHTHYLENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
ANTHRACENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
BENZO(A)ANTHRACENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
BENZO(A)PYRENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
DIBENZ(A,H)ANTHRACENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
FLUORANTHENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
FLUORENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
INDENO(1,2,3-CD)PYRENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
NAPHTHALENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
PHENANTHRENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)
PYRENE	-- (0.06)	-- (0.57)	-- (0.063)	-- (0.06)	-- (0.056)	-- (0.06)	-- (0.056)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2106	262F2109	262F2110	262F2113	262F2114	262F2117	262F2118
Field ID	TF2HP027	TF2HP028	TF2HP028	TF2HP029	TF2HP029	TF2HP030	TF2HP030
Date Sampled	02/15/2000	02/15/2000	02/15/2000	02/15/2000	02/15/2000	02/15/2000	02/15/2000
Sample Depth (in feet)	7.00 - 7.50	3.00 - 4.00	6.00 - 8.00	3.00 - 3.50	6.50 - 7.00	3.00 - 4.00	7.00 - 8.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
ACENAPHTHYLENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
ANTHRACENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
BENZO(A)ANTHRACENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
BENZO(A)PYRENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
DIBENZ(A,H)ANTHRACENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
FLUORANTHENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
FLUORENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
INDENO(1,2,3-CD)PYRENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
NAPHTHALENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
PHENANTHRENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)
PYRENE	-- (0.059)	-- (0.057)	-- (0.059)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2121	262F2122	262F2129	262F2130	262F2133	262F2134	262F2225
Field ID	TF2HP031	TF2HP031	TF2HP033	TF2HP033	TF2HP034	TF2HP034	TF2HP041
Date Sampled	03/15/2000	03/15/2000	03/15/2000	03/15/2000	03/15/2000	03/15/2000	03/06/2000
Sample Depth (in feet)	2.50 - 3.00	6.00 - 6.50	3.00 - 3.50	6.50 - 7.00	2.50 - 3.00	6.50 - 7.00	5.00 - 5.50
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
ACENAPHTHYLENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
ANTHRACENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
BENZO(A)ANTHRACENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
BENZO(A)PYRENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
DIBENZ(A,H)ANTHRACENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
FLUORANTHENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
FLUORENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
INDENO(1,2,3-CD)PYRENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
NAPHTHALENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
PHENANTHRENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)
PYRENE	-- (0.057)	-- (0.063)	-- (0.056)	-- (0.059)	-- (0.056)	-- (0.06)	-- (0.057)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2226	262F2229	262F2230	262F2233	262F2234	262F2237	262F2238
Field ID	TF2HP041	TF2HP042	TF2HP042	TF2HP043	TF2HP043	TF2HP044	TF2HP044
Date Sampled	03/06/2000	03/06/2000	03/06/2000	03/06/2000	03/06/2000	03/06/2000	03/06/2000
Sample Depth (in feet)	8.50 - 9.00	4.50 - 5.50	9.00 - 10.00	4.00 - 4.50	8.00 - 8.50	3.50 - 4.00	7.50 - 8.00
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
ACENAPHTHYLENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
ANTHRACENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
BENZO(A)ANTHRACENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
BENZO(A)PYRENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
DIBENZ(A,H)ANTHRACENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
FLUORANTHENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
FLUORENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
INDENO(1,2,3-CD)PYRENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
NAPHTHALENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
PHENANTHRENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)
PYRENE	-- (0.061)	-- (0.057)	-- (0.06)	-- (0.057)	-- (0.059)	-- (0.053)	-- (0.061)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2241	262F2242	262F2245	262F2246	262F2249	262F2250	262F2253
Field ID	TF2HP045	TF2HP045	TF2HP046	TF2HP046	TF2HP047	TF2HP047	TF2HP048
Date Sampled	03/06/2000	03/06/2000	03/07/2000	03/07/2000	03/07/2000	03/07/2000	03/07/2000
Sample Depth (in feet)	4.50 - 5.00	8.00 - 8.50	4.00 - 4.50	7.50 - 8.50	3.00 - 4.50	8.00 - 9.00	4.00 - 4.70
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
ACENAPHTHYLENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
ANTHRACENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
BENZO(A)ANTHRACENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
BENZO(A)PYRENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
DIBENZ(A,H)ANTHRACENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
FLUORANTHENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
FLUORENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
INDENO(1,2,3-CD)PYRENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
NAPHTHALENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
PHENANTHRENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)
PYRENE	-- (0.054)	-- (0.066)	-- (0.053)	-- (0.057)	-- (0.056)	-- (0.059)	-- (0.056)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2254	262F2305	262F2306	262F2309	262F2310	262F2313	262F2314
Field ID	TF2HP048	TF2HP050	TF2HP050	TF2HP051	TF2HP051	TF2HP052	TF2HP052
Date Sampled	03/07/2000	05/15/2000	05/15/2000	05/12/2000	05/12/2000	05/15/2000	05/15/2000
Sample Depth (in feet)	8.00 - 9.00	1.00 - 2.00	7.00 - 8.00	3.00 - 3.50	6.50 - 7.00	2.00 - 2.50	5.00 - 5.50
PAH (in MG/KG)							
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
ACENAPHTHYLENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
ANTHRACENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
BENZO(A)ANTHRACENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
BENZO(A)PYRENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
DIBENZ(A,H)ANTHRACENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
FLUORANTHENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
FLUORENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
INDENO(1,2,3-CD)PYRENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
NAPHTHALENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
PHENANTHRENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)
PYRENE	-- (0.06)	-- (0.34)	-- (0.06)	-- (0.056)	-- (0.059)	-- (0.11)	-- (25)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

Soil Analytical Results - Site F2B
Naval Station Treasure Island

Sample ID	262F2315	262F2317	262F2318
Field ID	TF2HP052	TF2HP053	TF2HP053
Date Sampled	05/15/2000	05/12/2000	05/12/2000
Sample Depth (in feet)	9.00 - 10.00	3.00 - 3.50	6.50 - 7.00
PAH (in MG/KG)			
2-METHYLNAPHTHALENE	NA	NA	NA
ACENAPHTHENE	-- (0.057)	-- (0.058)	-- (0.06)
ACENAPHTHYLENE	-- (0.057)	-- (0.058)	-- (0.06)
ANTHRACENE	-- (0.057)	-- (0.058)	-- (0.06)
BENZO(A)ANTHRACENE	-- (0.057)	-- (0.058)	-- (0.06)
BENZO(A)PYRENE	-- (0.057)	-- (0.058)	-- (0.06)
BENZO(B)FLUORANTHENE	NA	NA	NA
BENZO(G,H,I)PERYLENE	-- (0.057)	-- (0.058)	-- (0.06)
BENZO(K)FLUORANTHENE	NA	NA	NA
CHRYSENE	-- (0.057)	-- (0.058)	-- (0.06)
DIBENZ(A,H)ANTHRACENE	-- (0.057)	-- (0.058)	-- (0.06)
FLUORANTHENE	-- (0.057)	-- (0.058)	-- (0.06)
FLUORENE	-- (0.057)	-- (0.058)	-- (0.06)
INDENO(1,2,3-CD)PYRENE	-- (0.057)	-- (0.058)	-- (0.06)
NAPHTHALENE	-- (0.057)	-- (0.058)	-- (0.06)
PHENANTHRENE	-- (0.057)	-- (0.058)	-- (0.06)
PYRENE	-- (0.057)	-- (0.058)	-- (0.06)

Notes:

J - Estimated concentration
-- Not detected
NA - Not analyzed
MG/KG - Milligrams per kilogram
(7.3) = Detection limit

Detection over screening value
Detection limit > screening value

Applicable Comments:

a - Surrogate recovery problem
b - Lab blank and common contamination problem
c - Calibration criteria exceedance
d - Duplicate precision problem
e - Matrix spike/LCS recovery problem
f - Field blank contamination problem
g - Quantification below reporting limit
h - Holding time exceedance
i - Internal standard exceedance
j - Other qualification reasons

031TD2020
TF2HP053
TD2HP029
17-HP007
17-MW01
2HP030
TF2HP051
031TF2009
TF2HP031
TD2HP027
17-SB01
TF2HP034
031TF2015
17-HP005
D2HP024
TD2HP025
17-HP001
TD2HP018
031TD2011
17-SB02
05-HP010
TF2HP033
05-HP001
TF2HP050
05-HP007
031TD2010
031TD2009
TD2HP019
TF2HP052
05-HP008
05-HP006
05-HP003
-HP012
05-TP03
TD2HP022
TD2HP020
24-SB05
05-HP009
TD2HP021
TD2HP028
24-MW03

- BaP >=0.29 and TPH >=447
- BaP >=0.29 and TPH <447
- BaP <0.29 and TPH >=447
- BaP <0.29 and TPH <447
- BaP DL >=1 and TPH >=447
- BaP DL >=1 and TPH < 447
- BaP DL <1 and TPH >= 447
- BaP DL <1 and TPH < 447
- Total TPH (no BaP data) >=447
- Total TPH (no BaP data) <447

FUEL LINES

- Fuel Line Abandoned-in-Place
- Fuel Line Removed
- Fuel Line Not Located
- IR SITESIR SITES

N

30 0 30 60 Feet

Tetra Tech EM Inc.

SITE 05
NAVAL STATION TREASURE ISLAND

FIGURE 1

BENZO(A)PYRENE AND TOTAL TPH
IN SOIL

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031TD2020
TD2HP029
2HP030
TD2HP027
TD2HP024
TD2HP025
05-HP010
TD2HP018
TF2HP053
17-HP007
17-MW01
TF2HP051
031TF2009
TF2HP031
17-SB01
TF2HP034
031TF2015
17-HP005
17-HP001
031TD2011
17-SB02
TF2HP033
05-HP001
TF2HP050
05-HP007
031TD2010
031TD2009
05-HP008
TD2HP019
TF2HP052
05-HP006
05-HP003
05-TP03
TD2HP022
05-HP009
TD2HP020
24-SB05
TD2HP021
TD2HP028
24-MW03

- BaA >=2.9 and TPH >=447
- BaA >=2.9 and TPH <447
- BaA <2.9 and TPH >=447
- BaA <2.9 and TPH <447
- BaA DL >=5.8 and TPH >=447
- BaA DL >=5.8 and TPH < 447
- BaA DL <5.8 and TPH >= 447
- BaA DL <5.8 and TPH < 447
- Total TPH (no BaP data) >=447
- Total TPH (no BaP data) <447

FUEL LINES
- Fuel Line Abandoned-in-Place
- Fuel Line Removed
- Fuel Line Not Located
- IR SITESIR SITES

30 0 30 60 Feet

Tetra Tech EM Inc.

SITE 05
NAVAL STATION TREASURE ISLAND

FIGURE 2

BENZO(A)ANTHRACENE AND TOTAL TPH IN SOIL

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San Diego, CA 92132-5190

DATE: 05/02/01
CTO: 0308
LOCATION:
NAVSTA Treasure Island, San Francisco

FROM: Daniel Chow
Daniel Chow, Program Manager

DOCUMENT TITLE AND DATE:
Final RPM and BRAC Cleanup Team Meeting Minutes, November 14, 2000

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